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Lake Ontario Greenway Strategy:



Next Steps









Lake Ontario Greenway Strategy:

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WATERFRONT REGENERATION TRUST

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Waterfront Regeneration Trust



Fiducie de régénération du secteur riverain

Commissioner The Honourable David Crombie, P.C.

Deputy Commissioner David A. Carter Commissaire L'honorable David Crombie, p.c.

Sous-commissaire David A. Carter

September 27, 1995

Dear Colleague,

I am pleased to provide a copy of Lake Ontario Greenway Strategy: Next Steps.

This companion report to the *Greenway Strategy* has been prepared by the Waterfront Regeneration Trust on behalf of the Lake Ontario Greenway Strategy Steering Committee. It describes issues and opportunities, and suggests short-term goals and actions to regenerate the Lake Ontario Waterfront.

Thanks, as always, for your continued interest and involvement in this work.

Keep well, take care

David Crombie Commissioner

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ACKNOWLEDGEMENTS

This report represents the work of hundreds of people of various disciplines from government, business, and non-government groups who participated in the Steering Committee, workgroups, seminars, field trips and discussion sessions; undertook research; reviewed manuscripts; and/or provided written materials. Their time, expertise and enthusiasm are gratefully acknowledged.

Municipalities, conservation authorities and federal and provincial agencies have been involved in the preparation of the regeneration goals and actions in this report, which are generally consistent with existing or emerging Official Plans and other local initiatives.

Many individuals, citizen groups, service clubs and businesses are participating in the regeneration of the waterfront. Some of these participants have been active for years in waterfront planning, trail-building, ecological restoration, tourism development and other regeneration activities.

The Waterfront Regeneration Trust would like to thank each of you for doing your part to make the Lake Ontario Greenway Strategy possible.

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Introduction

This document is a companion to the Lake Ontario Greenway Strategy, which was released in May 1995 by the Waterfront Regeneration Trust. The Greenway Strategy documented current waterfront conditions along the Lake Ontario shore from Burlington Bay to the Trent River, set out objectives and actions for its regeneration, and reviewed progress and implementation mechanisms in support of those objectives.

This Next Steps report looks at waterfront issues and opportunities at a more detailed scale and in a shorter time frame, drawing on the directions established by the Greenway Strategy to suggest short-term regeneration goals for each of 14 landscape units along the waterfront, together with opportunities where immediate steps could be taken by government agencies, municipalities, interest groups, or landowners to promote regeneration. In contrast to the "Steps to come" outlined for each action in the Greenway Strategy, which might occur over the span of several decades, the "next steps" in this document are intended to be achievable within approximately five years.

LANDSCAPE UNITS

Fifty Point-Red Hill from Fifty Point to Burlington Bay Ship Canal

Burlington Bay west of the Queen Elizabeth Way from Windermere Basin to Indian Creek

Burloak from Burlington Beach to PetroCanada, Mississauga

Credit-Etobicoke from Rattray Marsh to Humber Bay Park

Humber Bay from Mimico Creek to Ontario Place

Don Valley from Western Gap to Scarborough boundary

Scarborough Bluffs from R.C. Harris water plant to East Point

Rouge-Duffins from East Point to Whitby boundary

Whitby-Oshawa from Lynde Shores to Darlington Provincial Park

Bowmanville from Darlington Provincial Park to Newcastle

Bond Head-Wesleyville from Bond Head to Port Hope boundary

Port Hope-Cobourg from Port Hope to Cobourg

Grafton-Colborne from Lucas Point to Presqu'ile Park entrance

Presqu'ile-Trent from Presqu'ile Park to the Trent River

Definition of Landscape Units

The 14 landscape units along the Greenway divide the Lake Ontario waterfront into sections that display homogenous or recurring patterns of environmental characteristics and/or land use. The boundaries between units are not intended to be exact or definitive. In many cases, landscape units cut across municipal boundaries. The units also define in an approximate way the northern extent of the Greenway, basing this extent on those lands which show a clear ecological, climatic, cultural, and/or economic connection to the waterfront.

Subdivisions between units are based on the following factors:

- The nine broad shoreline units, which classify the shoreline on the basis of controlling substrate (see Biophysical Characteristics map opposite this page)
- 2. Distribution of forest cover in the broader bioregional landscape (see Map 6 in the *Greenway Strategy*)
- 3. Cultural landscape units, which identify relatively intact historic landscapes and linear cultural features (see the background report Settling the North Shore, by Archaeological Services Inc.)
- 4. Visual landscape units, which subdivide the landscape on the basis of visual character (see the background report Waterfront Experiences, by Landplan Collaborative Ltd.)
- 5. Major differences in land use,



Definition of the northern extent of the Greenway is somewhat more difficult. In general terms, the same factors were considered, with the visual landscape units being particularly helpful. In many areas, this means that the Greenway extends inland to the first significant rise in elevation, which often corresponds to the former Lake Iroquois shoreline. Where significant natural areas continue up major river valleys, these are usually included. As well, the heritage corridor associated with Highway 2 is included.

Since the *Greenway Strategy* is not intended to be a formal planning document, a precise delineation of boundaries is not essential. However, these boundaries should provide a general picture of the limits of immediate waterfront influence along the north shore of Lake Ontario, taking into consideration ecological, community, and economic elements in an integrated ecosystem approach.

Analysis of Landscape Units

The regeneration goals and next steps outlined for each of the landscape units below are not intended to be comprehensive, but rather to identify some of the most obvious priorities arising from the *Greenway Strategy*. Many of the actions identified in the *Strategy* apply to all units, and have not been repeated for each one. Communities are also encouraged to identify other steps that could contribute to Greenway objectives in the short term.

A wealth of descriptive material and analysis which contributes to an understanding of individual landscape units is contained within the *Greenway Strategy*, the Toolkit reports which support the *Strategy*, and the background reports listed in the Bibliography of the *Strategy*.

For example, details on natural areas can be found in Vivian Brownell's report Waterfront Natural Areas. An analysis of potential tourism opportunities is included in Tourism and Recreation Market and Product Trends, by The Economic Planning Group of Canada. Information about changing patterns of cultural diversity along the waterfront is contained in White and Montgomery's report titled Who Are We?

While the regeneration goals and next steps identified for each landscape unit have not been specifically endorsed by the agencies involved, municipal, conservation authority and other agency staff, as well as members of the public, have been involved during the development of both the *Greenway Strategy* and the *Next Steps* document. The directions proposed here are generally consistent with existing or emerging Official Plans and other local initiatives.

The focus of the *Next Steps* document is to provide specific information and actions for the Greenway along the north shore of Lake Ontario. It should be used in conjunction with the *Lake Ontario Greenway Strategy* document, which provides an important context and directions for the entire Bioregion including the watersheds and their headwaters in the Niagara Escarpment and Oak Ridges Moraine.

Landscape its

FIFTY POINT-RED HILL LANDSCAPE UNIT

within Stoney Creek and Hamilton

The process, research, mapping and analysis for the Lake Ontario Greenway Strategy included the waterfront from Burlington to Trenton. While LOGS was in progress, former Premier Rae asked the Honourable David Crombie to advise the Province on the future of the Red Hill Valley including the proposed Red Hill Expressway, placing both issues within the context of Hamilton-Wentworth's understanding of its future. This work is consistent with the five objectives of the Greenway Strategy, so a summary is included here.

LANDSCAPE CHARACTER

Physical:

The landforms of this unit are mostly gently sloping glacial beach deposits associated with the former Lake Iroquois. Towards the east, a section of shale plain reaches the shoreline. Along its southern edge, the land rises steeply to the Niagara Escarpment. Red Hill Creek flows through a large wooded ravine into a marshy estuary, now mostly filled, and enters the eastern end of Burlington Bay. Several smaller creeks to the east, including Stoney and Fifty Creeks, flow directly into Lake Ontario through narrow wooded valleys. The unit includes part of the beach bar separating Burlington Bay from Lake Ontario.

The shoreline of this unit can be divided into three reaches, based on the controlling substrate and other coastal processes. From the Ship Canal to just east of the mouth of Stoney Creek, the substrate is deep sand, supplied with sediment from the east. This supply has been reduced through the placement of shore protection (mainly groynes, seawalls and revetments) to the east, but it is unclear whether the beach is eroding, growing, or remaining stable in the long term.

East of Grays Road to the west side of Fifty Point, the controlling substrate is cohesive sediments, and the shoreline type is a low bluff. Protection works along the shoreline have trapped coarse sediments, resulting in small beaches. Fifty Point itself is a headland feature, also made of cohesive materials, but with more of the larger cobble/boulder till materials that slow erosion.

There is no armouring along Hamilton Beach or Confederation Park but to the east, most of the private developments have armoured shorelines. There are two lakefills, one at Fifty Point and the other at the Newport Yacht Club development near Fruitland Road.

Biological:

The terrestrial part of this landscape has less than 10% forest cover, virtually all on steep slopes or in valleys, including the Red Hill Creek and Stoney Creek valleys and the Niagara Escarpment. Forests are mostly second growth riparian or slope hardwoods with some conifers along the Escarpment face. There are many street trees in residential areas and shade trees in the lakefront parks. Two Class 1 wetlands, the Red Hill Marsh and Van Wagners Ponds, are located near the mouth of the Red Hill Creek.



The Red Hill Creek Valley corridor connects the waterfront to the Escarpment. Although the Queen Elizabeth Way expressway cuts across its lower reaches, it remains a significant natural area with 383 vascular plant, 36 butterfly, 7 fish, 11 reptile and amphibian, 40 breeding bird and 10 mammal species recorded recently. It serves as a corridor for anadromous fish, including white suckers and chinook salmon, and is a restover area for migrant birds.

Cultural:

Much of the landscape unit is residential or industrial in nature, including a residential community on Hamilton Beach. There is a significant open space component along the Beach Strip from the Ship Canal to the eastern end of Confederation Park. Other open space areas are located in the Red Hill Valley, small parks in Stoney Creek, and Fifty Point Conservation Area.

The western end of the unit has overhead electrical transmission lines along the beach and the QEW lies within 200 metres of the shoreline in many places, affecting the ease of access. Hamilton's Woodward Avenue Sewage Treatment Plant is located adjacent to the mouth of Red Hill Creek. To the east, many

industrial and commercial buildings line the south side of the QEW.

Public access and views of the lake in this unit are available along the entire western end from Confederation Park to the Beach Canal, at Fifty Point Conservation Area, and at road allowances that reach the lake. Most of the remaining shoreline is privately owned.

PATTERNS OF CHANGE AND RELATED ISSUES

- Development, mostly residential, is occurring along the Stoney Creek section of this unit and the land use is changing from fruit farms or abandoned farmland to housing.
- The area around the mouth of Red Hill Creek and the eastern end of Burlington Bay has been polluted over a long period by effluent from the Woodward Avenue Sewage Treatment Plant and industry. Removal and/or cleanup of contaminated sediments have begun as well as actions to improve water quality. Water quality is expected to be impaired for a very long time to come, nevertheless.

- Expansion of the sewage treatment plant is scheduled to occur soon, reducing the amount of open space in its immediate area.
- Naturalization of parts of Confederation Park is proceeding with the assistance of a local company, local residents and the Hamilton Region Conservation Authority (HRCA).
- Trail systems are planned or developed along Hamilton Beach and in parts of Stoney Creek. Limitations in the Stoney Creek section include lack of access to the lakeshore in many places.

REGENERATION GOALS AND NEXT STEPS

- Protect and restore significant
 natural areas and corridors
- The Hamilton Region Conservation Authority and its partners should build on the available provincial funding to restore the Red Hill Creek Valley through a series of projects involving cleanup, restoration, planting, inventories and community support.

N. NT STEPS

- The construction of a Biosphere Interpretive Centre should be supported to:
 - draw positive attention to the global and local significance of the Niagara Escarpment as a World Biosphere Reserve;
 - foster an understanding and appreciation of World Biosphere Reserves;
 - encourage informed action towards the conservation of biological diversity and the promotion of environmentally appropriate development; and
 - foster understanding of the relationships between the Biosphere Reserve and Hamilton-Wentworth's changing economy.
- Other natural areas identified through the Hamilton-Wentworth Natural Areas Inventory, as well as natural corridors between the shoreline and the Escarpment such as the Stoney Creek valley, should be protected through municipal planning processes and other means.

2. Improve water quality

The implementation of the Hamilton Harbour Remedial Action Plan, as it applies to the Red Hill Creek watershed and estuary areas, is an essential step in improving water quality.

3. Create trail links

Municipalities, the HRCA, and trail groups should continue to work together to create links between the Waterfront Trail and regional/inter-regional trail systems in Hamilton-Wentworth, including the Bruce Trail, the Hamilton Beach Trail, the Red Hill Creek Trail, City of Hamilton trails, the Stoney Creek trail system and rail-trail corridors.

4. Improve shoreline management

-- An Integrated Shoreline Management Plan (ISMP) should be developed for this section of shoreline to assess the impact of further shoreline treatment to the east on Van Wagners Beach. and to incorporate aquatic resources management, land uses, shoreline management. This ISMP should be completed as a joint project of the Hamilton Region Conservation Authority, the Region of Hamilton-Wentworth, the City of Hamilton and the Town of Stoney Creek, and should include a process of community involvement.

BURLINGTON BAY LANDSCAPE UNIT

within Hamilton and Burlington

LANDSCAPE CHARACTER

Physical:

This unit is based mostly on gently sloping former beach deposits associated with glacial Lake Iroquois. Along parts of the north shore of Burlington Bay, the present shore bluffs reach up to 15 metres in height. Grindstone Creek and its tributaries are deeply cut into narrow, heavily wooded valleys north of the Bay. Spencer Creek enters from the west through a shallower bay with organic soils known as Coote's Paradise. The land on three sides of the Bay rises towards the crest of the Niagara Escarpment. The unit includes Burlington Bay, a relatively deep, eutrophic embayment, and the western side of the sandy beach bar separating it from Lake Ontario.

There are very limited shore currents within Burlington Bay. Much of the shoreline within the Bay has been armoured. Major lakefills are associated with the Canada Centre for Inland Waters, just inside the Ship Canal, and with extensive industrial lands and

recreational areas along the City of Hamilton waterfront.

Biological:

The terrestrial part of this landscape retains 6.4% forest cover, primarily on steep slopes and in valleys. Forests are mostly upland and slope hardwoods, with strong Carolinean influences. A considerable number of street trees are found in residential areas.

Grindstone Creek and Spencer Creek provide significant corridors linking the waterfront to the Escarpment, with anadramous fish runs and seasonal use by migrating birds. Otherwise near the lakeshore, remnant habitats are small and fragmented. Existing natural vegetation appears to be important in stabilizing soils and providing staging and wintering habitat for migrant birds. The waters of Burlington Bay also are used extensively by wintering and migrant waterfowl. The Windermere Basin area, in the southeastern section of the Bay, is especially heavily used by waterfowl, and also has breeding colonies of gulls, terns, cormorants, and herons.

Cultural:

Much of the landscape unit is residential in nature, but with a significant open space component provided by the Grindstone Creek valley, the Woodland and Holy Sepulchre cemeteries, LaSalle Park, Burlington Golf and Country Club, and the Hamilton Bayfront areas. The heavy industry of Hamilton Harbour is a very visible part of the lakeshore area.

Public access and views of the water in this unit are primarily available at LaSalle Park, Royal Botanical Gardens (RBG), Bayfront and Pier 4 parks, with most of the remaining shoreline privately owned. The Waterfront Trail follows North Shore Boulevard across Burlington within this unit. Proposals to provide trail links from the RBG to the Hamilton Harbourfront recreation areas are under discussion. The City of Hamilton also has an extensive series of cycling routes under development, which link to waterfront areas.



Recreational harbours are located at LaSalle Park and Hamilton Harbourfront. The Royal Botanical Gardens, which owns most of the Grindstone Creek valley and lands to the west, provides significant opportunities for public access to natural landscapes.

PATTERNS OF CHANGE AND RELATED ISSUES

Land uses within this unit are relatively stable. However, several issues should be considered:

- Residential infilling proposed for the Easterbrook Estate in Burlington will require careful attention to the type and form of development in relation to issues of public access, scenic resources, and habitat protection.
- The Burlington Bay Golf and Country Club is one of only two private golf courses along the entire Greenway, and represents a significant open space asset. If changes in land use are proposed in future for this area, securing municipal and Greenway objectives will become important considerations.

- Due primarily to historic industrial operations and municipal sewage sources, water and habitat quality in Hamilton Harbour have been seriously impaired, and the bay is listed as an Area of Concern by the International Joint Commission. Through the Remedial Action Plan process, a number of restoration activities have been identified. Removal and/or cleanup of contaminated sediments have begun as well as actions to improve water quality and fish and wildlife habitats. As implementation is in its early stages, water quality is likely to remain an important issue for a long time to come.
- In the southern part of the Bay, lakefill continues to create new industrial lots from open water around the Harbour and Windermere Basin.

REGENERATION GOALS AND NEXT STEPS

- Protect and restore significant
 natural areas and corridors
- The natural qualities of the following waterfront natural core areas should be protected and enhanced:

Coote's Paradise Willow Point Hendrie Valley

The continuity of the Grindstone Creek valley and the Spencer Creek valley as major bioregional corridors extending beyond the Greenway should be enhanced. The aquatic and terrestrial habitats associated with the Creek mouths and the Willow Point shoreline should continue to be improved, and targets to maintain tree cover within the landscape unit as a whole should be established.

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2. Restore water quality

- The continued implementation of the Hamilton Harbour Remedial Action Plan provides the most effective steps to improve water quality, as well as improving fish and wildlife habitat conditions and public access within Burlington Bay. Particularly noteworthy is the project underway in Coote's Paradise to determine the effectiveness of removing carp to assist in marsh rehabilitation.
- The existing coordination groups the Bay Area Implementation Team
 and the Bay Area Restoration
 Council, in consultation with the
 conservation authorities, regional
 and local municipalities and others
 provide an appropriate and
 proven structure for activities relating to restoration of this area.
 Their activities should be encouraged and supported.

3. Create trail links

- Trail links should be completed between the Burlington Bay section of the Waterfront Trail and regional trail systems in Hamilton-Wentworth, including the Bruce Trail, the Hamilton Beach Trail, rail-trail corridors, and cycling routes within central Hamilton.
- 4. Encourage appropriate economic development
- The Burlington Bay and Royal Botanical Gardens area should be recognized as a primary tourism/recreation destination area, and future planning should encourage the enhancement of educational, recreational, and habitat protection programs. The RBG should incorporate waterfront and watershed themes into its existing interpretive and educational programs, and should review ways in which it can take advantage of association with the Waterfront Trail in its marketing and promotion.

 Efforts to revitalize the City of Hamilton's central area, in and around Barton Street, should include improved connections to Hamilton's waterfront and its natural amenities.

BURLOAK LANDSCAPE UNIT

within Burlington, Oakville and Mississauga

LANDSCAPE CHARACTER

Physical:

This unit is mostly gently sloping till plains, with a +15 metre high Lake Iroquois shore bluff approximately 3 km inland from the present shore. Bronte and Sixteen Mile Creeks are set in deeply-incised forested valleys, with some exposures of shales along the valley walls.

The shoreline from the Burlington downtown area eastwards is erodible shale substrate with a convex profile. Over 80% of this shoreline is armoured, mostly with large rock, and alongshore sediment transport is minimal. Some shingle beach and low bluff is exposed at Burloak Park and Coronation Park. There are some small estuarine wetlands at creek mouths. The exposed Queenston shale bluff shoreline at Burloak Park is significant as the last representative shale exposure on public land along the waterfront.

The shoreline along the Burlington Beach part of this unit is sandy dynamic beach, with a convex profile. Shore currents along the beach have been altered, and they carry little sediment, but the beach is relatively stable. Some shoreline armouring has taken place at the Ship Canal and associated with Spencer Smith Park and lakefill at the Venture Inn site.

Biological:

Only 1.6% forest cover remains within the unit, mostly in river valleys. The forests are mostly upland and slope hardwoods, with strong Carolinian influences. There is virtually no forest interior habitat. Remnant natural areas along the waterfront are highly fragmented and small in size. Migratory bird staging and wintering habitat is present wherever natural vegetation occurs.

Bronte and Sixteen Mile Creeks are significant corridors for anadramous fish and migratory birds, and their upper reaches provide coldwater habitat and strong habitat connections to the Niagara Escarpment. Some smaller streams (e.g. Shoreacres Creek, Fourteen Mile Creek, Joshua's Creek) retain remnant habitats but are heavily altered by urbanization. Others such as Tuck Creek host seasonal fish runs but are not suitable for reproduction.

Very significant winter concentrations of waterfowl, most notably Scoters and Scaup, gather offshore, especially where bedrock substrate occurs. The influx of Zebra Mussels which attach to these rocky surfaces has since 1991 increased waterfowl concentrations in the Burloak area. Loons and Grebes also occur frequently during migration. Coastal waters were historically important coldwater fish habitats, but have been heavily altered by stonehooking, overfishing, and changes in the aquatic species mix.



Cultural:

Early European village settlements developed around the harbours at the Bronte and Sixteen Mile Creek mouths. A strong presence of historic buildings, street patterns, and cemeteries remains in these areas. The historic cultural landscape is also evident, but less intact, in the Burlington Downtown area, together with a concentrated cluster of archaeological sites indicating former native use of this area. Historic agricultural use, particularly orchards, has been almost entirely replaced by residential growth, with commercial and industrial development concentrated along the QEW.

The Burlington Beach area has been heavily affected by the construction of an elevated expressway, electrical transmission lines, a former rail line (now used as a trail), a sewage treatment plant, and a highways works yard. The majority of the waterfront area is single-family residential, with a few higher-density residential pockets, one area of waterfront industrial use at the eastern end of the unit, and recreational open space at the western end.

Pedestrian access and views of the lake are provided in Burlington by Windows to the Lake (street ends) and by larger parkland areas at Burlington Beach, Spencer Smith Park and Burloak Park. There are greater opportunities for access in Oakville with walking/cycling paths along 35% of the shore, usually on narrow, manicured linear parks. The Waterfront Trail for cyclists is mostly street-based, with low to moderate traffic levels through pleasant neighbourhoods with a richness of detail in architecture, gardens, and tree-scapes.

There is fairly busy recreational use of the waterfront in summer months, especially at Bronte and Oakville harbours which provide recreational boating access, and at the Burlington Beach area. Annual festivals at Coronation Park, the harbours, and Spencer Smith Park attract many visitors to the waterfront. There is relatively heavy winter use of lake viewpoints by birdwatchers.

PATTERNS OF CHANGE AND RELATED ISSUES

Land uses along most of the unit are relatively stable, with changes occurring mostly at nodes along the waterfront:

Over the past two decades, several agencies have participated in acquiring shoreline lands along Burlington Beach; other public lands such as a Ministry of Transportation (MTO) works yard, a sewage treatment plant, and a hospital are located just backshore. A review of the Draft Burlington Beach Master Plan, recently completed, has identified environmental constraints associated with the expressway, sewage works, and hydro lines, and development potential for residential, specialized commercial, retail and niche businesses to enhance the vitality of the area. Public recreational opportunities will also be increased along the Beach in areas and forms which are intended to protect the primary dunes and dynamic beach and associated habitats. A Great Lakes Science Centre, as a forum for education, training, showcasing and promoting environmental research, technology and information, is proposed for the Beach area. At the same time, consideration is being given to expansion and improvement of the existing sewage treatment works, as one approach among several alternatives, and to the benefits of relocating the MTO works yard. Integrating these uses and other changes in the downtown area to strengthen connections to the water will be a challenge.

- Proposals for redevelopment of the Burlington Downtown Waterfront East area have the potential to assist in the creation of a major tourism/recreation destination area, but will need thorough investigation of shoreline management approaches, public access, and the proposed built form to ensure compatibility with the surrounding area and the waterfront landscape.
- The marina development and other projects underway in the Bronte Harbour area are assisting in the creation of a viable tourism/recreation destination area, with opportunities to address the relationship between residents and visitors, the maintenance of the historic character of the area, the incorporation

- of naturalization of the lower river valley, and potential wetland restoration.
- As further historic waterfront estates are converted to more intensive residential use, providing public access to the water while maintaining privacy for residents may become an issue; there is a need to ensure that development and recreational uses are sensitive to the concerns of adjacent residents, while achieving Greenway objectives.
- Natural habitats within this unit have been severely depleted by past land use changes; key needs are to enhance the connectivity and naturalization of river and stream valleys, especially in their lower reaches, to restore wetlands, to improve opportunities for wildlife movement east-west along the shore, and to maintain the potential for future restoration of coldwater fishery values along the open coast.

The Queenston shale shoreline bluffs and associated bank swallow nesting colonies at Burloak Park are eroding rapidly; appropriate approaches and mechanisms to maintain these features with minimal intervention require investigation.

REGENERATION GOALS AND NEXT STEPS

- Protect and restore significant natural areas and corridors
- The natural qualities of the following waterfront natural core areas should be protected and enhanced:

Burlington Beach
Shoreacres Creek
Bronte-Burloak Woods (part) –
Burloak Park-Sheldon Creek
Lower Bronte Creek
Coronation Park (north part)
Fourteen Mile Creek
Lower Joshua's Creek
Valley (part)

- The continuity of Bronte, Sixteen Mile, and Fourteen Mile Creek valleys as major bioregional corridors should be enhanced, and the corridor function of Joshua's Creek should be restored to the extent possible.
- * Valley and river mouth aquatic and terrestrial habitats should be given priority for improvement, especially through projects to re-create wetlands in settings near the mouths of Sixteen Mile, Bronte, Shoreacres and Joshua's Creeks.
- Existing tree cover, especially close to the waterfront, should be maintained, and restoration targets identified for additional natural habitats within the unit.
- Improve shoreline management practices
- Shoreline management practices in future should be designed to improve habitat potential for coldwater fish along the open coast, and to protect or restore significant coastal features such as bedrock exposures and shingle beaches.

- As part of Shoreline Unit 2 (see Biophysical Characteristics map opposite page 4), a partnership involving the Halton Region Conservation Authority (HRCA) and the Region of Halton (and including municipalities, other public agencies, and community groups) should develop an Integrated Shoreline Management Plan that will:
 - encourage innovative approaches for grouped shore protection renewal among small frontage landowners;
 - outline strategies to protect remaining natural woodlands along the shore as opportunities arise (including Shell House lands, Ontario Hydro Fusion Research Centre lands, Hindemarsh Estate, etc.);
 - identify priority areas for the creation or restoration of wetlands and aquatic/terrestrial habitat connections;
 - identify opportunities to improve public access and the Waterfront Trail in conjunction with local municipalities; and

- provide specific parameters for the design and evaluation of small-scale lakefill projects and for shoreline protection projects.
- In addressing remedial works for shoreline erosion at Burloak Park, the HRCA and the municipalities involved should review the appropriateness of past lakefill proposals and current management needs, to ensure that the shoreline and ecological values associated with the site are not diminished.

3. Enhance historic character

Planning policies and other municipal and private sector actions should be oriented to enhancing the historic character of Bronte Village, Oakville Harbour, and Downtown Burlington, and to protecting and promoting features of historic or cultural interest elsewhere.

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- Expand opportunities for public access
- The Region of Halton, City of
 Burlington, Public Works Canada,
 Ministry of Transportation,
 Hamilton Harbour Commission
 and Canada Centre for Inland
 Waters (CCIW) should cooperate
 in the establishment of a trail connection in the vicinity of CCIW and
 the Ship Canal. This trail would
 link the Burlington Bay north
 shore trail and the trail promenade
 along Burlington Beach to achieve
 an integrated trail system linking
 the Bay with Lake Ontario.
- The municipalities of Burlington, Oakville and Mississauga should gradually upgrade the Waterfront Trail by monitoring trail use, by providing opportunities for cyclists to easily access the water's edge at some locations (by providing lock-ups for bike parking, etc), by providing improved pedestrian and cycling alignments where necessary and as opportunities arise, and by ensuring that waterfront developments contribute to establishment of the Trail.

- The Region of Halton, City of Burlington, and Town of Oakville should identify opportunities to increase tourist visitation and visitor appreciation of the major winter waterfowl concentrations, by providing improved parking, shelters, and interpretive materials at look-out points.
- 5. Develop tourism destination areas
- The Bronte Harbour area and Burlington Beach/Downtown
 Burlington should be developed as primary tourism/recreation destination areas, and Oakville Harbour as a secondary tourism/recreation destination area.
- The current partnership approach to the development of Bronte Harbour as a tourism/recreation destination area should be supported and encouraged to expand so as to consider habitat restoration and heritage conservation needs, recreational/special events programming to increase usage, and physical and promotional links to Bronte Provincial Park.
- * The Region of Halton, HRCA, and the City of Burlington, in conjunction with other agencies and community groups, should continue to ensure the integration of potential development in the Burlington Downtown area, proposals for the Downtown Waterfront East area, and the implementation of the Burlington Beach Master Plan Strategic Review. This integration should be oriented towards the development of this area as a visitor destination area through community-based involvement and public/ private sector partnerships.
- The Ontario Ministry of
 Transportation and the Ontario
 Provincial Police should cooperate
 with the Region of Halton and the
 City of Burlington in reviewing how
 their lands in the Burlington Beach
 area could be made available for
 redevelopment purposes.
- Ontario Hydro should continue to review long-term options to relocate or remove the existing transmission corridor along Burlington Beach.

CREDIT-ETOBICOKE LANDSCAPE UNIT

within Mississauga and Etobicoke

LANDSCAPE CHARACTER

Physical:

Most of the waterfront in this unit is bevelled till plain, rising gently to sands associated with the glacial Lake Iroquois shoreline. Etobicoke Creek and Cooksville Creek are set within relatively shallow valleys across the plain. The Credit River lies within a linear, deeply incised valley which becomes broader and shallower close to the lake.

The shoreline in this unit is a continuation of the shoreline character to the west, with erodible shale substrate and a convex profile. Shore currents are largely contained by several piers, with minimal sediment transport. Shore bluffs are generally low, with several small areas of cobble beach. Approximately 80% of the shoreline is currently armoured. Major lakefill areas are located at J.C. Saddington Park, Lakefront Promenade Park, and Colonel Sam Smith Park.

Biological:

Forest cover within this landscape unit is sparse, at 4.9% of its total area. This paucity is the result of the formerly intensive agricultural use of the plain, as well as rapid urbanization. Most of the forests that remain are valley remnants, with the notable exception of Cawthra Woods, the best remaining example of till plain forest close to the waterfront. Forest is more common on the steep slopes of the Credit valley. Most of the forest is upland and slope hardwoods, with no interior forest present.

Remnant marshlands occur along the lower Credit River and in Rattray Marsh at the mouth of Sheridan Creek. Wetland creation projects are underway at Lakefront Promenade Park and Colonel Sam Smith Park. Where habitat fragments have survived, as in Marie Curtis Park, seasonal and winter use by migrant birds appears to be heavy. Offshore waters also host significant winter concentrations of waterfowl.

The Credit valley forms a major northwards link to the Niagara Escarpment for migratory birds and anadramous fish, with coldwater habitats in its upper reaches.

Cultural:

Much of the early settlement in this area was associated with the harbour area at Port Credit. As well as acting as a shipping area for lumber from the Credit watershed, this port hosted a fishing fleet and a steamship line. Concentrations of historic buildings are found around Port Credit and in the former villages of Clarkson, Long Branch, Mimico, and New Toronto. The former Lakeshore Psychiatric Hospital grounds also contain a number of significant historic structures and landscapes, which are currently being refurbished.

The majority of this unit is now in single-family residential use, with pockets of industrial and institutional lands. Lakeview Generating Station occupies a significant block of waterfront lands, and its smokestacks (the "Four Sisters")



are a prominent local landmark. Access to the water's edge is limited in many areas by private property ownership, although a number of public parks, easements through provincial lands, license agreements with industries, and lakefills provide waterfront access. The Waterfront Trail through this unit is a mix of paved off-street and street-based alignments; a section along Lake Shore Boulevard at the east end of the unit is located on a busy arterial street and requires further improvements in future.

Recreational use of the waterfront occurs within municipal and lakefill parks and in the marinas at Port Credit, Lakefront Promenade Park, and Colonel Sam Smith Park. The annual Lakeshore community festival attracts many recreational users to the area.

PATTERNS OF CHANGE AND RELATED ISSUES

While the residential areas of this unit are relatively stable, a significant transition in land uses is strongly evident in other areas:

- The Port Credit area is undergoing a major transformation, due to publicly-funded redevelopment of the harbour area, and to private proposals for conversion to other uses of former industrial lands at St. Lawrence Starch. The Imperial Oil lands to the west of Port Credit represent another large vacant waterfront industrial property awaiting a change in use. Issues include the remediation of contaminated soils and groundwater, the appropriate design, height and density of new buildings, and incorporation of the Waterfront Trail and waterfront public open space. The City of Mississauga and Imperial Oil are working together to design the Trail along the southern edge of the property. Construction started during Summer 1995 on the placement of fill to make a berm between the Trail and the rest of the property.
- Redevelopment of the former
 Arsenals/Canada Post lands just
 west of Etobicoke Creek as recreational open space also faces challenges posed by past industrial
 uses, both in determining the fate
 of buildings on site and in managing contaminated soils and ground-

- water. The planning process has begun and will be guided by community input and the feasibility of remediation options.
- The renewal of the former Lakeshore Psychiatric site as public open space with a Humber College campus provides significant new opportunities along this section of the waterfront.
- The conversion of the former Goodyear Tire industrial lands in Etobicoke north of Lakeshore Boulevard is increasing the residential population in this area, which will also increase local demand for waterfront open space.
- The scarcity of natural habitats within this unit raises issues related to connectivity of habitats; natural areas such as Cawthra Woods, for example, are very isolated.

REGENERATION GOALS AND NEXT STEPS

- Protect and restore significant natural areas and corridors
- The natural qualities of the following waterfront natural core areas should be protected and enhanced:

Rattray Marsh
The remnants of Lorne Park
Prairie/Lornewood Creek
Lower Credit River marshes
Stavebank Oak Woods
Cawthra Woods and Creek
Lower Etobicoke Creek/
Marie Curtis Park
Colonel Sam Smith Park

- Local agencies should seek to enhance the aquatic and terrestrial habitat continuity of the Credit River and Etobicoke Creek as major bioregional corridors, and to restore habitat conditions, especially near the river mouths and in the larger public parks.
- The quality of existing tree cover should be maintained, and a restoration target established for tree cover within the unit.

- The existing wildlife habitat creation projects associated with lakefill projects in this unit should be continued and expanded, and interpretive signage and education activities focusing on wildlife and their habitats should be encouraged.
- Improve shoreline management practices
- As part of Shoreline Unit 2 (see Biophysical Characteristics map opposite page 4), a partnership between the Credit Valley Conservation Authority, MTRCA, Mississauga, Peel, Etobicoke, and Metro Toronto should develop an Integrated Shoreline Management Plan that will:
 - encourage innovative approaches for grouped shore protection renewal among small frontage landowners;
 - outline strategies to protect and enhance remaining natural woodlands along the shore;

- identify priority areas for the creation or restoration of wetlands and habitat connections in association with the river mouths of the Credit River and Etobicoke Creek;
- identify opportunities to strengthen along-shore linkages for warmwater fish populations;
- identify opportunities to improve public access and the Waterfront Trail;
- provide specific parameters for the design and evaluation of small-scale lakefill projects and shoreline protection projects;
- identify opportunities for transient docking facilities to encourage boater visits to local businesses.
- Shoreline management practices in future should be designed to increase habitat linkages for warmwater fish along the shore, especially in association with river mouths, and to maintain or improve existing linkages for coldwater fish species into the Credit River.

3. Enhance historic character

Planning policies and other municipal actions should be oriented to enhancing and interpreting the historic character and special cultural associations of Port Credit, Long Branch, New Toronto, and Mimico, as well as features of heritage interest on the former Lakeshore Psychiatric grounds. Interpretive activities such as the walks and brochures sponsored by the Lakeshore community should be encouraged.

Expand opportunities for public access

Mississauga and Etobicoke should be encouraged to continue their active programs of development and upgrading of the Waterfront Trail, particularly to relocate sections of the Trail from busy sections of Lakeshore Road and Lakeshore Boulevard to routes closer to the waterfront as feasible; to incorporate the Trail into new developments; and to minimize conflicts with the quiet residential character of parts of the waterfront.

Development of a greenway system up the Credit River valley would not only improve habitat linkages but also provide a setting for trail development where ecologically appropriate to link the waterfront to adjacent neighbourhoods.

5. Develop tourism destination areas

- The Port Credit area should be considered a primary tourism/ recreation destination area, with associated environmental remediation and residential/commercial development opportunities.

 Lakefront Promenade Park and Colonel Sam Smith Park should be recognized as secondary tourism/ recreation destination areas.
- The City of Mississauga should strive to ensure that the current redevelopment activities in the Port Credit area, both public and private, are planned and implemented in an integrated manner, take advantage of opportunities to create a memorable section of Waterfront Trail, provide pedestrian/cycling links to the Port Credit GO station, and incorporate ecological and cultural heritage restoration.

- As redevelopment is completed, the Port Credit area holds considerable potential for additional tourism-related events and programming, related both to land-based activities such as trail use or shopping, and water-based activities such as charter boat fishing. A community-driven strategy to develop packages of attractions and provide joint marketing will be beneficial in deriving the greatest advantage from this area.
- The City of Etobicoke, Metro
 Toronto, and MTRCA should continue to integrate master planning
 of the former Lakeshore Psychiatric
 Hospital grounds with Colonel Sam
 Smith Park and adjacent public
 lands and with the educational
 institutions in the area to ensure
 that the full range of Greenway
 objectives (public access, habitat
 restoration, built heritage conservation, etc) is met.

N 1 N S 1 1 P S

HUMBER BAY LANDSCAPE UNIT

within Etobicoke and Toronto

LANDSCAPE CHARACTER

Physical:

The Humber River valley is moderately incised into a gently sloping sand plain near the waterfront. It crosses the glacial Lake Iroquois beach feature several kilometres upstream and rises onto till plain.

This section of waterfront includes Humber Bay, with the former beaches almost entirely modified by offshore seawalls and shore protection works, and a heavily modified shoreline to the east. Most of the bay is a drowned river valley, with deep silt and sediments present on its floor. Large lakefill projects near the west and east ends of the unit have considerably changed the past shoreline configuration. Water quality in the lower Humber River and the bay is significantly impaired by stormwater runoff and sewage treatment plant outfalls. Extensive areas of contaminated sediments are found on the floor of the bay.

Biological:

The Humber valley sides and floor have scattered remnant and regenerating forest; together with other ravines and parklands, these forests total 3.3% of the landscape unit area. There is essentially no natural vegetation in the immediate shoreline area, with the exception of scattered landscape trees. High Park provides very significant natural habitat in some sections, including important oak savannah habitat elements. The City of Toronto is examining whether the western bank of Grenadier Pond and the ravine slope above it can be designated an environmentally sensitive area.

Remnant marshes in the lower sections of the river valley provide wetland habitat, although their quality appears to be declining in recent years resulting in a loss of wildlife species. However, the marshes, valley forests, and High Park forests are well-used habitats for migrant birds, and appear to provide a significant corridor through the urban metropolis. The breakwall and lakefill areas provide sheltered habitats and

roosting areas for shallow-water ducks and a variety of gulls, especially in winter, and offshore waters can also host concentrations of winter waterfowl. Both warmwater and coldwater fish enter the Humber River for seasonal spawning, but are blocked from upstream portions by dams.

At the western end of the unit, the Mimico Creek valley acts as a corridor connecting Lake Ontario to the Lake Iroquois shoreline and allowing for the movement of species. Two lakefill parks - Humber Bay West and East - provide diverse habitats and uses. While the western park has been developed primarily for boating, the eastern park has been designed to encourage wildlife, providing year-round habitat as well as a resting and feeding area for birds and butterflies during spring and fall migration and sheltered waters for over-wintering waterfowl. It also is a key area for existing and potential fish habitat.



Cultural:

The Humber River area has a rich human history, since it acted as a major portage route to the north for native peoples and early European traders. Further to the east, the French presence is recorded on the site of Fort Rouillé at Exhibition Place. The early history of Toronto is also represented at Fort York, and many fine examples of historic recreational uses of the waterfront are present at Exhibition Place and along the Western Beaches at Palais Royale and the Sunnyside Bathing Pavilion. The military history of Toronto, Ontario, and Canada is represented through such features as HMCS Haida, Fort York armouries, and Coronation Park.

The unit has a diverse mix of current land uses. Most of the shoreline is public open space, including major attractions at the Exhibition grounds and Ontario Place. A number of marinas and private yacht clubs are clustered along the shore and in the lower Humber River. A narrow waterfront parkland strip known as the Western Beaches is separated from the city to the north by an expressway, major arterial roads, and a rail corridor. High Park is also included within the unit, along with several areas of parkland

along the Humber River. The unit also includes residential neighbourhoods, institutional uses, and industrial zones, some in transition.

The Humber Bay unit has a long history of waterfront recreational use, but the physical and psychological barrier effects of the transportation corridor have lessened its attraction somewhat. The Martin Goodman Trail provides an off-road paved trail alignment across most of the unit, and a new pedestrian/cycling bridge across the mouth of the Humber will undoubtedly increase trail use in the area. Several major lakefill parks (Humber Bay Parks and Ontario Place) are significant waterfront recreation resources.

PATTERNS OF CHANGE AND RELATED ISSUES

With the exception of most of the residential areas and High Park, this is a unit in transition, with changes occurring or proposed in many places:

In the Etobicoke Motel Strip, a major redevelopment scheme involving high-density residential/ commercial areas and public open space along the waterfront is in the early stages of implementation.

- ✓ In the Garrison Common area, the Boards of Ontario Place and Exhibition Place have established a committee to explore a single management system. The National Trade Centre is under construction, and the new 16,000 seat Molson Amphitheatre at Ontario Place is in operation. Construction of a new transit loop north of the Trade Centre on Manitoba Drive is slated to begin in September 1995. Other public transit and road improvements to facilitate movement to, from and between these business and tourist attractions are being discussed.
- In the Bathurst Strachan area, City Council has approved a new Part II Official Plan. While the plan does not prohibit development under the Expressway, it does effect a land exchange between the City and a major landowner to create a buffer zone for Fort York north of the Bremner Blvd. alignment. The new plan allows a residential/commercial neighbourhood with reduced heights and densities on a grid of streets and blocks that conforms to the normal city pattern. Changes were also made to the Railway Lands West plan to preserve the view corridors from Fort York east

to the downtown. To the north, sidewalk reconstruction and tree planting are under way to recognize Garrison Creek which has been routed into storm sewers under Walnut Street. The Garrison Creek Community Project is developing plans for alternative stormwater management and a linear system of green spaces linking the former Lake Iroquois shoreline to the waterfront.

- In Garrison Common North, City Council has approved a new Part II Official Plan and zoning by-law amendments. The under-utilized industrial district to the north of Exhibition Place has been rezoned to permit a mix of industrial, commercial, and live/work uses. The new National Trade Centre and upgraded GO station will foster pedestrian links through the transportation corridor to the Exhibition lands and the waterfront.
- Restoring depleted natural habitats and water quality of Humber Bay, and decreasing pollutant loadings transported down the Humber River and Mimico Creek are major challenges within this unit.

REGENERATION GOALS AND NEXT STEPS

- Protect and restore significant natural areas and corridors
- The natural qualities of the following waterfront natural core areas should be protected and enhanced:
 Humber Bay Park Lower
 Mimico Creek (part)
 Lower Humber River Marshes
 High Park Oak Woodlands
- The continuity of the Humber River and Mimico Creek as major bioregional corridors should be enhanced by improving water quality and river mouth aquatic and terrestrial habitats. The potential of the Humber River to act as a coldwater fish migratory corridor should also be recognized and protected.
- Ecological restoration priority areas should include the Humber River marshes, especially along the west side of the river where former marshlands have become manicured parkland, but where significant populations of amphibians are still found. Grenadier Pond and the unique oak woodlands of High

Park are other important restoration sites. There is a need to increase natural forest within the unit, and to set an achievable restoration target for tree cover.

- The managers of parklands in the Western Beaches and Garrison Common areas should investigate methods of incorporating ecological restoration techniques into management of these areas, with significantly increased native tree and shrub cover, while retaining the largely open views of Humber Bay from adjacent roads and trails.
- The development and implementation of a Humber River watershed strategy through the Humber Task Force coordinated by the Metropolitan Toronto and Region Conservation Authority should be fully supported.

- 2. Improve shoreline and stormwater management practices
- Current efforts to remediate environmental conditions within
 Humber Bay should be continued and expanded. The implementation of the Metro Toronto and Region Remedial Action Plan, as outlined in its Stage 2 report Clean Water, Clear Choices, should be strongly supported. Shoreline management practices should be designed to enhance habitat conditions and linkages for warmwater fish communities and encourage wetland creation in association with lakefills and river mouths.
- The decision of the Minister of Environment and Energy to bump-up the Western Beaches Tunnel project to a full environmental assessment should not curtail efforts to put in place master planning for wastewater systems on a watershed basis.
- The innovative wetlands created for stormwater management in Humber Bay East Park and the stormwater flow balancing pond proposed in association with the Etobicoke Motel Strip develop-

- ment, together with the fish habitat enhancement projects in those sites, should be interpreted to visitors as examples of improved practices.
- When the existing Western Beaches breakwater structures are in need of replacement or major repair, new design features should encourage onshore-offshore movement by fish and improve water circulation.
- 3. Enhance historic character
- The significant historic structures and cultural sites within the unit should be protected, and care taken to enhance the long-standing recreational character and scenic vistas associated with Humber Bay. The revitalization of the Western Beaches parkland area would create an attractive gateway for Toronto and enhance the recreational, scenic, and habitat qualities of the area.

- Expand opportunities for public access
- The construction of the new Humber River Bicycle-Pedestrian Bridge and the Etobicoke Motel Strip amenity lands will provide opportunities to increase trail usage in the Humber Bay area, and to promote this section of the waterfront as a memorable place for outings along the Waterfront Trail.
- Toronto, Etobicoke, and Metro
 Toronto should continue their
 efforts to improve trail links and
 trail design within the unit, including particularly links to High Park
 and the Humber valley, improved
 links to the west in Etobicoke, and
 upgrading of the Western Beaches
 section of the Martin Goodman
 Trail.
- The current review of transportation facilities in the area should seek to reduce the barrier effects of transportation corridors between waterfront attractions, and between the waterfront and adjacent city neighbourhoods.

5. Strengthen tourism destination areas

- The role of the Garrison Common area as a primary tourism/recreation destination area should be strengthened, and the Humber Bay to High Park area (including the Etobicoke Motel Strip) should be recognized as an emerging primary tourism/recreation destination area.
- The integration of Ontario Place and Exhibition Place should lead to the relocation of surface parking facilities to lands north of the Trade Centre, and create the opportunity to remove asphalt and restore the park-like character of the eastern Exhibition grounds.

6. Guide future development

The potential of this unit as a major area of urban redevelopment and intensification should be fully recognized, and planning processes should ensure that development projects, both public and private, contribute to Greenway objectives and the nine waterfront principles established by the Royal Commission.

- Future development and transportation improvements in this unit should be designed to enhance and complete the existing north-south open space system, to recognize and restore the Garrison Creek ravine, and to provide visual and physical connections to Fort York and the waterfront.
- Planning within this unit should recognize the needs and potential of a very diverse mix of ethnic populations, and provide opportunities to celebrate and sustain ethnic cultural traditions.

DON VALLEY LANDSCAPE UNIT

within the City of Toronto

LANDSCAPE CHARACTER

Physical:

Most of the area within this unit was originally gently sloping sands, with the more northerly parts of the Don valley cutting into areas of clay till. The original landscape character has been greatly modified and largely obscured by urbanization. The waterfront has been substantially modified by historic lakefill and armouring, so that very little natural shoreline remains. Much of the shoreline along this unit is sheltered from large waves by Toronto Island and Tommy Thompson Park. Eastern Beaches and Toronto Island were originally dynamic beaches with a convex profile, but both have been heavily modified so that alongshore sediment transport is minimal.

Biological:

Approximately 4.4% of this landscape unit is in forest cover, primarily in the Don valley and associated ravines, and on Toronto Island and Tommy Thompson Park. The east branch of

the Don especially forms a major landscape corridor linking to the Oak Ridges Moraine, which acts as a route for some migrant birds through the urban core.

The construction of Tommy Thompson Park has created spectacular new wildlife habitat, which is heavily used by migrant birds and by nesting colonial birds. As well, the remaining natural sections of the north shore of the Outer Harbour and Toronto Islands have long been known as important migrant habitat, especially for such species as Saw-whet Owls. The sheltered lagoons of Toronto Islands and the lakefill parks (Tommy Thompson and Ashbridge's Bay) also provide habitat for warmwater nearshore fish communities, and coldwater salmonids occur seasonally along the exposed coast. The sheltered waters of this unit also provide habitat for a considerable number of winter waterfowl, especially Oldsquaw ducks.

Cultural:

This unit is rich in cultural history and contemporary cultural activities, reflecting its historic and present role as a major urban core. As well as buildings associated with the history of commerce in downtown Toronto, there are historic structures and districts reflecting past industrial and harbour uses, and unique residential neighbourhoods such as the Beaches and the Toronto Island community. The Don Valley Brickworks site incorporates both industrial heritage elements and a geological site of international importance. The Gooderham and Worts buildings form another fascinating and important example of industrial heritage; the site is designated a national historic site and is undergoing redevelopment.

The Harbourfront area provides an important cultural venue for residents of the surrounding region and for tourists. The unit also includes many other major tourist attractions, such as the CN Tower, Skydome, cultural areas along Queen Street and the theatre



districts on King St. and Yonge Street. Waterfront use is heavy most of the year, and moderate during the winter, especially in the central harbour and along the Eastern Beaches boardwalk. Although pedestrian and cycling access to the waterfront is hampered by the road and rail corridors crossing the unit, both the Martin Goodman Trail along the waterfront and the Lower Don Valley Trail have been greatly improved and support considerable recreational use.

Current land use within the unit is varied. The urban core portion contains high-rise commercial and residential buildings, hotels, and institutional uses such as Union Station. To the east, most of the area within the unit is residential and local commercial. Significant sections of the unit remain industrial in nature, although much of the industrial component has been in decline. Transportation facilities, including the Gardiner Expressway, arterial roads, rail, and the Toronto Island Airport, take up a considerable area. Major sections are also open space, particularly in the Don valley and along the outer waterfront.

The presence of offshore islands and spits and the distinctive nature of the Toronto skyline provide abundant memorable views and landmarks within this unit.

The shoreline waters and sediments of this unit suffer serious quality problems, particularly in the inner harbour area. As well, bacterial problems related to stormwater and sanitary sewage frequently require the closing of beaches across the unit. The entire unit falls within an Area of Concern, as identified by the International Joint Commission.

PATTERNS OF CHANGE AND RELATED ISSUES

As might be expected within a dynamic urban core, changes within this unit are occurring at a rapid pace:

Significant new investments have been attracted to the Central Bayfront and Harbourfront areas recently, emphasizing the Central Waterfront's role as one of Canada's premier tourist destinations. These investments include the new arena at the foot of Bay St. to house the Raptors basketball franchise and the headquarters of

Air Canada, an expansion of the Metro Convention Centre and creation of a new urban park, and new tourist attractions at the CN Tower. In addition recent applications for over 500 units of housing in Harbourfront alone, as well the pending conversion to residential of 15 commercial buildings in the downtown core underscore the area's growing residential character. The Beaches community is currently engaged in a planning process for the residential redevelopment of the Greenwood Racetrack site.

- Remediation and renewal of the Port Industrial District and the adjacent areas in the lower Don Valley are addressed in the Trust-coordinated Lower Don Lands Strategy, to be published in 1995. Economic and environmental regeneration are key components of the Strategy.
- The recent transfer of approximately 165 hectares of land previously owned by the Toronto Harbour Commission to the Toronto Economic Development Corporation (TEDCO) creates new opportunities for economic renewal.

Changes to transportation facilities within this unit are being considered through the Transportation Corridor Improvement Program. The transportation improvements identified by this work program are the strategic actions required in the short, medium, and longer term to build on the considerable advantages of the existing transportation capacity and improve circulation to, from and between the high value tourism, entertainment and residential uses that are redefining the Central waterfront.

REGENERATION GOALS AND NEXT STEPS

- Protect and restore significant natural areas and corridors
- The natural qualities of the following waterfront natural core areas should be protected and enhanced:

Toronto Islands
Don Valley Brickyard
North Shore of the
Outer Harbour including
Cherry Beach
Tommy Thompson Park
Glen Stewart Ravine

- The continuity of the Don River valley as a major bioregional corridor should be enhanced, with aquatic and terrestrial habitat linkages restored in the lower valley and to the Outer Harbour and Toronto Island natural habitats, and an improved river mouth provided. Projects such as the Chester Springs Marsh demonstration project in the lower Don Valley are helpful first steps in this restoration activity.
- Through the work of MTRCA and the Don Watershed Task Force, an environmental blueprint called Forty Steps to a New Don has been developed, which provides guidance to the regeneration of habitat and water quality in the watershed, to be implemented through the Don Watershed Council.
- The Waterfront Regeneration Trust has produced a plan that sets out some regeneration opportunities for the Greenwood Racetrack area and the public lands adjacent to the site. Consisting of reforestation, marshland and creek restoration, the plan would reestablish some important natural habitat to the east side of the Leslie Street Spit,

- provide a buffer between the planned residential community and the Main Sewage Treatment Plant.
- The naturalization of major portions of Tommy Thompson Park provides an excellent opportunity to develop techniques to effectively transform confined disposal facilities for dredged materials and lakefill areas into aquatic and wetland habitats.
- Improve shoreline management practices
- The shoreline area from Tommy
 Thompson Park to the
 Scarborough boundary is included
 in an Integrated Shoreline
 Management Plan currently under
 development for Shoreline Unit 6
 and parts of Units 5 and 7 (see
 Biophysical Characteristics map
 opposite page 4). Among other
 matters, this plan will examine the
 relationship between the natural
 sand supply to the Eastern Beaches,
 and continued shoreline armouring of Scarborough Bluffs.

- The need for further steps to control shoreline erosion along the outer edge of Toronto Islands should be examined through a separate study.
- Future shoreline management within the Inner and Outer Harbour areas should enhance and expand warmwater fish habitats, and improve linkages between existing habitat areas (recent restoration actions in the development of Harbour Square Park provide a good example). Along the open coast areas of the unit, maintaining forage fish production and links for pelagic coldwater fish movement should be management priorities.
- The improvement of water and sediment quality along the water-front and in the lower Don River are important priorities which must be addressed in all future shoreline management.

- 3. Expand opportunities for public access and appreciation
- Improvements to the Martin Goodman Trail within this unit include plans for an improved alignment in the Parliament Street - Cherry Street area, and future upgrading along Queen's Quay. A suitable location to establish a trailhead marker introducing the Waterfront Trail should also be sought.
- Interpretation of aspects of the waterfront's natural and cultural heritage should take place initially at sites on the Inner Harbour, the Don Valley Brickworks, the Gooderham and Worts buildings, and Roundhouse Park. In future, the restoration of parts of the drainage area of Ashbridge's Bay may provide other educational opportunities.
- 4. Strengthen tourism destination areas
- Waterfront/Toronto Harbour area as a primary tourism/recreation destination should be recognized, and the development of new attractions, events, and services

- should be encouraged in this area, within the context of a stable residential community.
- New initiatives underway in the Harbourfront area include construction of a school and community centre to serve the residential community, and future relocation of the Marine Museum to the Spadina Quay as an added visitor attraction.
- The Tommy Thompson Park to
 Eastern Beaches area (including the
 Outer Harbour and Ashbridge's
 Bay Park) acts as a secondary
 tourism/recreation destination
 area, with the potential to continue
 specialized uses (urban wilderness,
 marinas, windsurfing, swimming)
 in keeping with the ecological and
 community constraints of the area.
- Where possible, interpretive messages about the value and nature of the waterfront should be incorporated into existing or new tourism/recreation facilities.

5. Guide future development

- Redevelopment activity consistent with Greenway objectives should be supported within major sections of this unit as a means of continuing the renewal of under-utilized and transitional areas, and of economically remediating the effects of past land uses.
- The Lower Don Lands Strategy will provide assistance in the environmental and economic renewal of the Port District and lower Don valley. As well, the ongoing efforts of TEDCO in this area provides opportunities to restore a diverse mix of business operations, with an emphasis on green industries.
- Investment following the approval of the Railway Lands plan will lead to the development of short and long-term projects that will enhance the waterfront area. These include the Metro Toronto Convention Centre expansion, stabilization and re-use of the Roundhouse as a rail museum and interpretive centre, the basketball arena and Air Canada headquarters at the foot of Bay Street, and improved waterfront access

- through the demolition of the York Street viaduct and restoration of the Teamways as pedestrian walkways, and the extension of Simcoe Street South.
- Several concepts are under consideration to improve transit services to the waterfront area. These include a GO shoulder station at Cherry Street and the provision of transit services in the east waterfront corridor. Considerable effort has been directed to examining the costs and benefits of repairing or removing the elevated Gardiner Expressway east of the Don Roadway. Removal of the Expressway would be beneficial to overcoming the barrier effect and promoting the north-south reconnection of east end streets to the waterfront.

SCARBOROUGH BLUFFS LANDSCAPE UNIT

within Scarborough

LANDSCAPE CHARACTER

Physical:

The shoreline of the Scarborough Bluffs unit is characterized by impressive steep bluffs, up to 110 metres in height, where the thick layers of finegrained glacial till meet the water. Across most of the western half of the unit, the former Lake Iroquois shoreline coincides with the existing shore; east of Bellamy ravine, a bench appears between the former shoreline and the top of the existing bluff. The bluffs are of international geological significance, providing excellent exposures of the history of glacial advances in this part of Ontario.

The shoreline has a concave profile, meaning that the lakebed drops off relatively steeply with little shallow water to protect against wave attack. The bottom substrate is mostly shifting sands over consolidated till. Over half of the toe of the bluffs has now been armoured, and a major lakefill park has been created at Bluffers Park. As a result, much of the bluff area is gradu-

ally losing its steepness, and becoming more vegetated. Shore currents are predominantly east to west, and unprotected sections of the bluff continue to actively erode at low to moderate levels.

Biological:

The inland portion of the Scarborough Bluffs landscape unit is heavily urbanized, with 3.9% remaining in forest cover. No major watercourses enter the lake in this unit, although several major ravines extending inland from the bluffs provide pockets of native forest. The bluffs provide a significant eastwest corridor of wooded and regenerating habitats along the shore, with use by migrant passerines and hawks.

Offshore waters are used by migrant loons and mergansers in significant numbers, and coolwater fish communities are known to be resident in the sheltered waters associated with Bluffers Park. Lake trout and other salmonids seasonally gather offshore, although spawning potential is limited by the sandy substrate and relatively high turbidity from eroding clay

particles. The shoreline probably provides good habitat for forage fish production.

Cultural:

A substantial portion of the shoreline and bluff area is in public ownership, both for recreational purposes and to provide shore protection works and setbacks from the eroding bluffs. Most of the remainder of the unit is in single-family residential use, with a few pockets of higher-density residential, industrial, and institutional use. The Toronto Hunt Club golf course, near the west end of the unit, is a major parcel of private open space on the waterfront.

Pedestrian and cycling access to the water's edge is very limited within this unit because of the physical difficulties presented by the bluffs. Access is available at Guildwood Park and Bluffers Park, and at several other areas such as the Bellamy ravine for those willing to undertake a strenuous hike. A series of municipal parks along the top of the Bluffs provides frequent views of the



lake below, but agreement on an acceptable routing for the Waterfront Trail through Scarborough has yet to be reached.

Bluffers Park provides picnicking, boat access and marina facilities, and is very heavily used in the summer months, on occasion creating traffic and parking conflicts with nearby residential areas.

PATTERNS OF CHANGE AND RELATED ISSUES

While land uses within this unit are quite stable, several issues are present along the shoreline:

The ongoing natural erosion processes along the unprotected sections of the bluffs creates concerns about property protection in some parts of the unit. On the other hand, proposals for further shoreline armouring raise issues about the loss of the scenic splendour and scientific value of the bluffs, about further diminishing the sand supply to Toronto's Eastern Beaches, and about financial costs of installation and maintenance.

- Management of the regional parklands associated with the bluffs faces several challenges, including access to and congestion problems around Bluffers Park, ensuring that future uses respect the artistic and cultural heritage of the Guild Inn property, and conflicts between preserving the natural values of East Point Park and a proposed future marina.
- Neighbourhood concerns about crime, vandalism and traffic have prevented a resolution to date on a street-based routing for Waterfront Trail cyclists. The feasibility of putting all or at least the walking component of the Trail below the bluffs is being explored.

REGENERATION GOALS AND NEXT STEPS

- Protect and restore significant natural areas and corridors
- The natural qualities of the following waterfront natural core areas should be protected and enhanced:

Fallingbrook Woods
Scarborough Bluffs and
Bluffers Park
Guild Woods

- Major sections of the bluffs should be maintained in their natural state, without armouring or lakefill at their base, particularly where existing bluffs have important scenic or scientific values or where existing beaches occur.
- Parklands, shoreline protection areas, and other properties should be restored to native vegetation cover wherever possible, and targets established to significantly increase forest coverage within the landscape unit.
- 2. Improve shoreline management practices
- The Metro Toronto and Region
 Conservation Authority and municipalities should be supported and encouraged in their development of an Integrated Shoreline
 Management Plan for the area from Tommy Thompson Park to
 Frenchman's Bay. Among other matters, this plan will establish:
 - a shoreline regeneration strategy including recommendations for which sections of the bluffs should be armoured and which left natural;

NIXT STEPS

- a public safety strategy;
- a public use strategy, including the feasibility of establishing a useable Waterfront Trail alignment below the bluffs;
- a natural heritage strategy, including methods to maintain current fish habitat values and enhance where possible;
- a process and context for evaluating individual projects and proposals along the shoreline.

3. Maintain historic features

Planning policies and other municipal actions should be oriented to protecting, enhancing and promoting cultural values associated with the Guild Inn, St. Augustine's Seminary, and other cultural sites and landscapes.

- 4. Expand opportunities for public access
- Metro Toronto and the City of Scarborough should continue their work with local community groups to find an acceptable alignment for the Waterfront Trail.
- 5. Maintain tourism destination areas
- The Bluffers Park area currently serves as a secondary tourism/ recreation destination area, but it has little potential for expanded summer usage because of its limited access route and parking capacity.



ROUGE-DUFFINS LANDSCAPE UNIT

within Scarborough, Pickering and Ajax

LANDSCAPE CHARACTER

Physical:

This unit is mostly level to gently sloping drumlinized clay plain, with several small sections of Halton till, and sands associated with the former Lake Iroquois shoreline along its northern edge. Highland Creek, the Rouge River and Petticoat Creek are deeply cut into the landscape with steep valley sides. Duffins Creek and Carruthers Creek also cross the unit, set in shallow broad valleys. Extensive estuarine wetlands with barrier beaches occur at Frenchman's Bay and the mouths of the Rouge and Duffins Creek. There are smaller wetlands at the mouths of Highland, Petticoat and Carruthers Creeks.

Shore currents are generally west to east, along exposed open coast with low bluffs. The lakebed substrate is cobble/boulder at headlands, and sand/gravel in embayments, with a convex profile. There is little shoreline armouring or lakefill, with the exception of Pickering Nuclear Generating Station. In the Highland Creek-Rouge

River section, the waterfront rail line acts to stabilize the shore.

Biological:

This unit has 9.4% forest cover, including a small amount of interior forest in the lower Rouge valley. The Rouge Park provides a major habitat node in an urban context, including extensive slope and bottomland forests, significant fossil and geological exposures, provincially significant marshland, and dozens of rare species and communities. Other important natural areas are primarily valley-related, with upland forests very scarce. The Altona Forest, which is associated with Petticoat Creek just north of the Greenway, is a notable exception.

The interconnected habitats associated with this landscape unit and with the Rouge-Duffins Corridor just to the north appear to provide very significant wildlife corridors and habitat nodes to enhance the restoration of adjacent areas.

The remnant areas of natural vegetation are known to provide staging areas for migrant birds and butterflies, and for wintering owls and other birds. Lakeshore marshes provide habitat for a number of rare breeding birds and other species, as well as significant warmwater fish habitat. Most of the streams in this unit host runs of anadramous Lake Ontario salmonids.

Cultural:

Settlement of this area was delayed because much of the lakeshore was held in clergy and military grants. European settlement concentrated on harbour areas such as Frenchman's Bay, Duffins Creek (Pickering Village) and Port Union. A large number of archaeological sites document extensive native use of the area, especially along the lower Rouge valley, which has the only known Seneca village site in Canada.

Current land use has large blocks of residential, primarily single-family, and industrial areas, including the Pickering Nuclear Generating Station



and light manufacturing districts. Some sections of open farmland remain south of Highway 401, although these are mostly managed as holding areas for future urban growth.

Waterfront access is quite variable across the unit. Some 70% of the Ajax waterfront is managed as a belt of parkland, with the remainder of that municipality's shoreline slated to become public as future development proceeds. Through most of the Scarborough portion of this unit, however, the rail lines act as a barrier to waterfront access, as does the generating station in Pickering. The Rouge Park and Petticoat Creek Conservation Area provide important access points, as do the beaches at Frenchman's Bay. Recent projects associated with the Waterfront Trail, including a pedestrian bridge across the mouth of Duffins Creek, will significantly improve access in future.

A cluster of marinas is located within Frenchman's Bay and other marina proposals have been discussed in the Port Union area and the Ajax Harwood Street area. A boat launch ramp is located at the mouth of Duffins Creek.

PATTERNS OF CHANGE AND RELATED ISSUES

This landscape unit is within the expanding urban fringe, and is experiencing change at a fairly rapid rate.

- The Centennial Waterfront District in the Port Union area is the subject of a secondary plan to permit redevelopment for residential and commercial uses (Port Union Village). Overcoming the barrier effect of the rail corridor along the water's edge is one of the issues under consideration.
- Redevelopment proposals for parts of the Frenchman's Bay area are also under discussion, and progress has been made towards resolution of a long-standing dispute over the ownership of a major section of the bay.
- A proposed high-density residential development at the foot of Harwood Avenue in Ajax has been considered in various forms for several years, which, in its current form, would require controversial amendments to both the *Durham Regional Plan* and the *Ajax Community Plan* related to requirements for a marina.

- Runnymede Development
 Corporation has proposed a major residential development (Somerset Cove) at the easterly edge of the landscape unit adjacent to Carruthers Creek, on land that is currently vacant.
- A significant decline in water and wetland habitat quality in Frenchman's Bay has been recognized as an issue, but to date the necessary actions within the Bay's drainage area have not been taken to allow rehabilitation. Similar concerns about the effects of upstream urban development have been expressed about Duffins Creek Marsh, the Rouge Marsh, and the small wetlands at the mouths of Highland and Petticoat Creeks. Most water quality problems are associated with the cumulative impact of upstream stormwater outfalls, landfill sites, lack of tableland sedimentation ponds, and streambank erosion caused by high storm flows.

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Maintaining the continuity of habitat corridors is an important issue in this landscape unit, particularly given the importance of the forested valleys and tableland woodlands in the Rouge-Duffins Corridor just to the north of the Greenway for east-west species movement. Loss of forest cover through expanding urban development has been relatively rapid in recent years.

REGENERATION GOALS AND NEXT STEPS

- Protect and restore significant natural areas and corridors
- The natural qualities of the following waterfront natural core areas should be protected and enhanced:

East Point
Highland Creek Mouth &
Stephenson's Swamp
Highland Creek Swamp
Lower Rouge Valley
Rouge Valley - Midsection
Rouge Valley - Upper Section
Petticoat Creek
Frenchman's Bay Wetland
Duffins Creek Marsh
Carruthers Creek Forest
Ajax Warbler Swamp
Shoal Point Marsh
(Carruthers Creek Marsh)

- The continuity of Highland Creek, the Rouge River, Petticoat Creek, Duffins Creek, and Carruthers Creek as major bioregional corridors should be protected and enhanced, with adequate development setbacks, and tree-planting and naturalization projects where necessary, to help buffer valleys from adjacent development and to re-connect associated natural core areas.
- The ecological importance of the Rouge-Duffins Corridor, located just to the north of the Greenway, should be fully recognized in planning documents, with priority given to protecting component core woodlands such as Altona Forest.
- Restoration activities within this unit should give priority to improving river mouth aquatic and wetland habitats, increasing the amount and quality of interior forest in the Rouge Park, and improving woodland and meadow habitat connections along the Lake Ontario shore.

- The long term protection of Shoal Point Marsh (also known as Carruthers Creek Marsh) and Ajax Warbler Swamp should be assured through sensitive design of the adjacent Runnymede development, provision of appropriate setbacks and buffer areas, and plantings and naturalization to connect these areas to other habitats
- Improve shoreline management practices
- An Integrated Shoreline
 Management Plan (ISMP) is currently under development for the shoreline from Tommy Thompson
 Park to Frenchman's Bay (as outlined in the Scarborough Bluffs landscape unit description). As soon as feasible, a similar ISMP should be initiated for the remainder of this unit's shoreline. Until ISMPs are completed, any decisions on major shoreline alteration, such as examining the feasibility of a lakefill park in the Port Union area, should be deferred.

- Future development in this unit should maintain development set-backs from the shoreline to minimize the future need for shore armouring, to maintain the sand supply to barrier beaches and to encourage restoration of barrier beach natural qualities. In some parts of the unit, the extent of appropriate setbacks still needs to be determined.
- MTRCA and the Town of Pickering should proceed with the development of an ecosystem-based management plan (or some similar form of regeneration plan) for Frenchman's Bay, as recommended in 1991. This plan should include watershed plans for all tributaries feeding into the Bay, and should be oriented to substantially lowering sediment and pollutant loadings to the Bay, and to restoring habitat and recreational values. Until the plan is completed, new development adjacent to the Bay or in its watersheds should be discouraged.
- Fish habitats along the waterfront should be managed to encourage cool and warmwater fish communities (walleye, pike, bass), to maintain or improve linkages along the

- shore between river mouths, and to maintain coldwater fish habitat connections to tributary streams. Careful regulation of upstream development adjacent to these tributary streams is necessary to protect their water and habitat quality.
- A barrier beach management plan is being prepared in conjunction with the development of the pedestrian/cycling bridge across the Duffins Creek mouth, as a way to minimize and monitor environmental effects on the beach, and as a learning experience to help address the management of barrier beaches more generally.
- 3. Expand opportunities for appropriate public access
- A number of improvements to the trail system within the unit should be implemented, including:
 - incorporate the Waterfront
 Trail into the Port Union Village development, and establish trail links across Highland Creek to East Point and parallel to Highland Creek;

- in conjunction with the Rouge Park Alliance, identify a trail link (outside the environmentally sensitive valley) from the waterfront to the Rouge Park trail system north of Highway 401;
- as part of the Runnymede development, implement a trail route north of Shoal Point Marsh, with an adequate setback to protect the wetland environment;
- improve the trail route around Frenchman's Bay, both on public lands outside the wetland and as part of future development proposals;
- through the *Pickering Trail Master Plan* and other programs, encourage the development of trail links to adjacent communities, and to regional trails such as the Seaton Trail in the Duffins Creek valley.

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4. Maintain tourism destination areas

Because of their environmental sensitivity, recreational uses of the Frenchman's Bay and Rouge Park/Petticoat Creek secondary tourism/recreation destination areas should be kept within limits that protect the natural environments of these settings, while providing recreational and economic benefits to the adjacent communities.

5. Guide future development

Every effort should be made to ensure that the design of Runnymede's Somerset Cove project will illustrate how residential development in a waterfront location can be done in a manner that is compatible with shoreline processes and protection of natural areas, and incorporates the nine waterfront principles.

4

WHITBY-OSHAWA LANDSCAPE UNIT

within Whitby, Oshawa and Clarington

LANDSCAPE CHARACTER

Physical:

Most of this landscape unit is drumlinized clay plain, flat to gently rolling. Two wetlands are associated with the mouth of Lynde Creek, and Oshawa Second Marsh is located at the mouth of Farewell and Harmony Creeks. Small estuarine marshes are found at the mouths of Pringle Creek and Corbett Creek, along with a small lacustrine wetland at Pumphouse Marsh. All of the wetlands except Pringle Creek have active barrier beaches maintained by the lake's coastal processes.

Most of the shoreline is low bluff and cobble beach with a consolidated boulder/cobble substrate and convex profile. There is little shore protection or lakefill except in association with Whitby and Oshawa harbours and the Whitby Mental Health Centre.

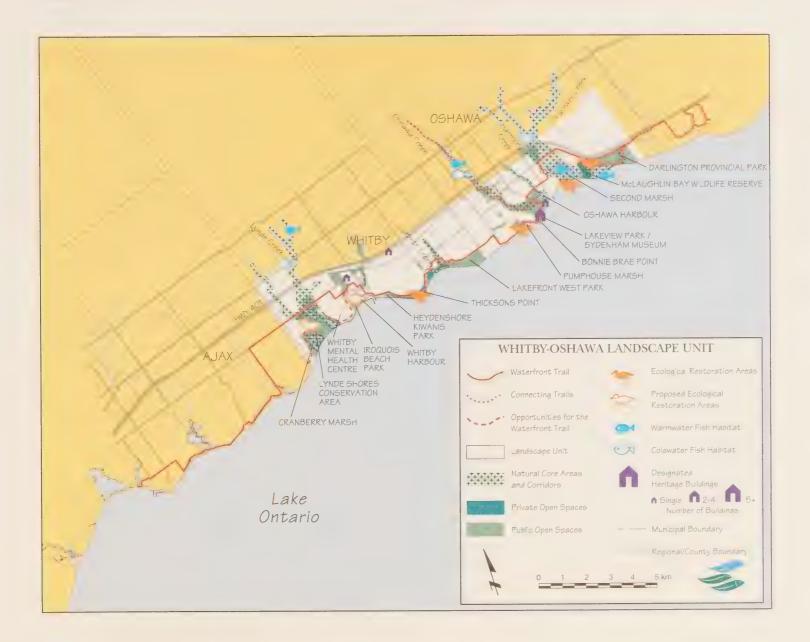
Biological:

Lynde Creek, Oshawa Creek, and Farewell/Harmony Creeks are major valley corridors used by anadramous fish and migrant birds. Their upper reaches provide strong connections to the Lake Iroquois shoreline and Oak Ridges Moraine. Pringle Creek and Corbett Creek are smaller and heavily impacted by urbanization. Oshawa Creek is more deeply incised with many wooded stretches, but is heavily altered at its mouth.

The unit has 2.7% forest cover; almost all in valleys. Significant habitats and species are present in lakeshore marshes and associated woods, for migrant, breeding, and wintering functions. Most notable in this regard are the habitats of the Lynde Creek valley, Corbett Creek mouth, and Oshawa Second Marsh areas.

Cultural:

The high concentration of archaeological sites around the mouth of Lynde Creek suggests that the same concentration of native activities probably occurred around other streams as well. After early European settlement in Port Whitby and Oshawa Harbour, most of the historical growth of town centres took place at mill sites and along Highway 2 at Whitby and Oshawa, north of the Greenway. Port Whitby and Oshawa Harbour developed port facilities separated from these town centres. The majority of current land use within the unit is industrial, including the major automotive factories that are so strongly associated with Oshawa and a mix of other large and small-scale industrial facilities. Nine of the ten largest industrial plants in Durham Region are clustered in this unit. Pockets of residential use, mostly multifamily, are found east of Whitby Harbour and around Oshawa Creek



Public access to the waterfront is good in comparison with many shoreline areas, with major nodes of public land at Lynde Shores Conservation Area, Oshawa Second Marsh, Darlington Provincial Park, and a series of municipal parks in the rest of the waterfront. The Waterfront Trail across the unit includes a mix of on-road and off-road sections, including some parts with excellent views and interesting surroundings. Agreements between the Town of Whitby and the industries Dupont Canada and Lasco Steel have provided fine new trail opportunities linking waterfront attractions, and further improvements to the trail system are expected in coming years. At present, much of the waterfront is lightly used for recreation, in part due to the industrial nature of much of the adjacent lands.

Recreational marinas and charter fishing boats are located at several sites in Whitby Harbour, and one location in Oshawa Harbour. Oshawa Second Marsh and the adjacent General Motors lands have interpretive facilities under development. Darlington Provincial Park provides one of the few camping areas along the Greenway.

PATTERNS OF CHANGE AND RELATED ISSUES

While most of the industrial areas within this unit are fairly stable, major changes are underway in a number of places:

- New residential growth is expected in the Lynde Creek area, which will change the character of the landscape and raises issues regarding appropriate measures to protect the adjacent wetland and open space areas.
- The Whitby Mental Health Centre is undergoing redevelopment with construction of a new institution; maintaining the cultural heritage values of the existing buildings and grounds is a matter of concern. Recently, feasibility studies have been completed for lands surplus to the new mental health centre; they identified an opportunity for a new educational research and development park related to health life sciences, to be developed around the Whitby Mental Health Centre and the Whitby General Hospital.

- A master plan for Whitby Harbour foresees major changes with new residential and recreational facilities. Some components of the plan have been completed, including a new boat launch site and improvements to the harbour wall.
- Ongoing industrial expansion, especially in the Thicksons Point area, will likely lessen somewhat the open landscape character of the area, and could affect the quality of local watercourses if not carefully managed.
- As industrial uses decline, the future of the Oshawa Harbour area has become a matter of protracted local debate, including issues related to:
 - the future use (industrial or conservation) of the historic Gifford Hill east of the harbour;
 - dealing with contamination of soils and bottom sediments from past industrial practices and from a former waste disposal site;

- providing buffering between the expanding recreational use and potential residential use of parts of the harbour and ongoing industrial uses;
- addressing the jurisdictional problems associated with a federal Harbour Commission which acts independently from the City.

REGENERATION GOALS AND NEXT STEPS

- Protect and restore significant natural areas and corridors
- The natural qualities of the following waterfront natural core areas should be protected and enhanced:

Cranberry Marsh
Lynde Shores/
Lynde Creek Marsh
Corbett Creek/
Thicksons Woods
Pumphouse Marsh
Second Marsh
McLaughlin Bay
Darlington Provincial Park

- The valleys of Lynde Creek, Oshawa Creek, and Farewell/Harmony Creeks should be protected and restored as major bioregional corridors providing potential north-south greenway links from the waterfront to the Oak Ridges Moraine.
- Major restoration nodes should be developed around lower Lynde Creek, with appropriate development setbacks to protect wetland functions and wildlife values, and in the Second Marsh to Darlington Provincial Park area. Habitat connections should also be created between lower Oshawa Creek and Second Marsh. The implementation of restoration plans for Second Marsh and the McLaughlin Bay Wildlife Reserve is well underway, and the development of a major interpretive facility in this area in the near future should also be supported.
- The active involvement of community groups should be continued to assist in habitat restoration activities in the Lynde Shores area,
 Thicksons Point, Pumphouse
 Marsh, Second Marsh, and
 McLaughlin Bay.

- Improve shoreline management practices
 - The Central Lake Ontario
 Conservation Authority (CLOCA),
 in conjunction with municipalities
 and other agencies and community
 groups, should develop an
 Integrated Shoreline Management
 Plan for this waterfront, possibly in
 conjunction with other parts of
 Shoreline Unit 6 to the east and
 west (see Biophysical
 Characteristics map opposite
 page 4). This ISMP should be in
 place prior to any major decisions
 on shoreline treatment, and
 should include consideration of:
 - the shoreline processes necessary to maintain barrier beaches and the recreational beach at Oshawa Harbour;
 - erosion protection issues, such as those for Bonnie Brae Point in Oshawa, where erosion may threaten several homes and a cemetery;
 - the shoreline process implications of marina development at Oshawa Lakefront Park West.

Future plans and policies should manage the shoreline to maintain natural processes, to enhance coldwater and warmwater habitats, and to enhance aquatic habitat connections to tributary streams and wetlands.

3. Enhance historic character

The City of Oshawa should develop a heritage conservation advisory group, to advise Council on the identification, evaluation and conservation of the cultural heritage resource base.

4. Expand opportunities for public access

- In partnership with the Province, municipalities, and CLOCA, means to acquire lands to the west of the existing Lynde Shores Conservation Area should be examined. Initial steps could include a trail agreement across those lands, to provide a link to the emerging trail route from Ajax.
- The municipality of Whitby, in concert with other agencies, should continue its efforts to improve the Waterfront Trail by providing a safe and attractive trail alignment

through Lynde Shores Conservation Area, along Victoria Street over Lynde Creek, through the Whitby Mental Health Centre grounds, and along the west side of Whitby Harbour.

The City of Oshawa should continue its efforts to improve the Waterfront Trail by seeking opportunities to move on-road sections to off-road, including moving the alignment along Phillip Murray Avenue into Lakeview Park West in association with the future development of the privately-owned lands south of Phillip Murray Avenue and west of Park Road.

5. Develop tourism destination areas

The Lakeview Park to Darlington Provincial Park area, including Oshawa Harbour, should be developed as a primary tourism/recreation destination area with an emphasis on enjoyment and interpretation of natural values. Whitby Harbour should be identified as a secondary tourism/recreation destination area.

- Recent municipal actions to encourage more people living within the unit should be supported, particularly in the vicinity of Whitby Harbour and Oshawa Harbour, with densities that require relatively compact form and that will leverage cleanup of degraded sites.
- The Waterfront Regeneration Trust has been requested by the City of Oshawa to assist in overcoming the jurisdictional stalemate over Oshawa Harbour. This process could help define a single long-term vision for the Harbour's use and develop and implement restoration and redevelopment plans.
- Transport Canada and the Province should review the future role of Oshawa Harbour, and of the Oshawa Harbour Commission, as part of an overall review of port needs along Lake Ontario.

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- Under the leadership of the City of Oshawa, local agencies and community groups should initiate a community-based planning effort to identify short and long-term opportunities to develop the tourism and recreation potential of Lakeview Park, Oshawa Harbour, Second Marsh, and Darlington Provincial Park.
- The Ministry of Natural Resources should review its management of Darlington Provincial Park to incorporate an emphasis on ecological restoration to native forest, to examine the feasibility of expanding the park eastwards along the shoreline below the rail corridor, and to review the appropriateness of continued waterfowl hunting in this park.

BOWMANVILLE LANDSCAPE UNIT

within the Municipality of Clarington

LANDSCAPE CHARACTER

Physical:

This landscape unit is based on gently rolling clay plain, with a few scattered drumlins. Bowmanville, Soper, Wilmot and Graham Creeks are set in moderately dissected valleys, usually with estuarine marshes at their mouths.

The current Lake Ontario shoreline has a substrate of cohesive cobble/boulder, with a convex profile. Shore currents tend to move west to east along the open coast. Much of the shore is characterized by low bluff headlands and cobble beaches. Shoreline armouring and lakefill are present only in small sections, with the exception of a major lakefill dock development at St. Marys Cement and hardened shore at the Darlington Nuclear Generating Station.

Biological:

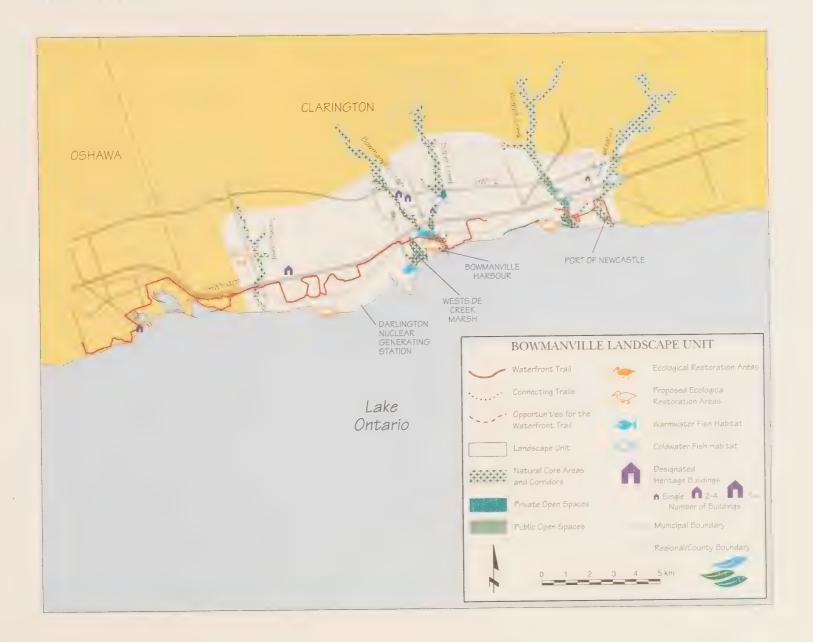
Forest cover within the unit is 2.1%, concentrated largely in creek valleys; upland forest is scarce. A series of lakeshore marshes and other remnant habitats are heavily used by migrant wildlife. Because of the urbanizing nature of this landscape unit, many of these habitats are becoming increasingly isolated.

The valley systems act as major habitat corridors connecting the waterfront to the Oak Ridges Moraine. Some smaller streams such as Tooley Creek connect the waterfront to the forested corridor associated with the Lake Iroquois shoreline. Most of these streams also host seasonal runs of anadramous fish from Lake Ontario.

Cultural:

Clusters of archaeological sites around creek mouths and marshes document extensive native use in the vicinity of Bowmanville Creek, Wilmot Creek, and Graham Creek. Early European development within this unit focused on the villages of Bowmanville and Newcastle, both set back several kilometres from the shore along Highway 2. Both communities retain much of their traditional small-town character in their central area, although new subdivisions are clustered around the edges, especially of Bowmanville. Both had associated harbours, at the mouths of Bowmanville and Graham Creeks, which are now recreational in nature.

Aside from these town sites, the dominant land use in this unit is agriculture. The immediate waterfront is more varied, with Darlington Nuclear Generating Station, a major quarry and private dock facility, and an extensive retirement community (Wilmot Creek). Marinas are located at the mouths of Bowmanville and Graham Creeks.



Much of the Waterfront Trail in this unit is currently located on relatively quiet country roads; the cooperation of Ontario Hydro and the initiative of the Municipality of Clarington have provided several important off-road links. There is currently no Trail alignment approved in the vicinity of the Wilmot Creek retirement community.

Provincial lands at the Wilmot Creek Provincial Fishing Area support fairly heavy use by anglers. However, there are relatively few other public lands along the shore, and recreational use overall is relatively light.

PATTERNS OF CHANGE AND RELATED ISSUES

At the outer edge of the urban fringe, this unit is under increasing development pressure, with a number of related issues:

Residential and related urban growth is projected to continue along the Highway 401 corridor in Courtice, Bowmanville and Newcastle, with Clarington's population projected to grow from 55,000 now to 175,000 in the next 20 years. This growth could affect the continuity of natural corridors, diminish the heritage character

- and community identity of existing villages, and increase recreational demand along the waterfront.
- Residential growth is proposed at several sites along the waterfront itself, including the proposed Bramalea residential subdivision west of the Port of Newcastle, and expansion of the existing retirement village at Wilmot Creek. Provision of an appropriate alignment for the Waterfront Trail, public access to the shore, and protection of adjacent natural areas are issues.
- Subsequent to the adoption of its Waterfront Plan, the Municipality of Clarington is preparing secondary plans for the Bowmanville/Port Darlington Waterfront area and the Port of Newcastle area to allow a mix of uses, including residential, commercial, and tourist activities. Issues of design and density, market feasibility, servicing, shoreline setbacks, and public access to the waterfront will need to be addressed in these plans.
- A major issue in this landscape unit has been the conflict between St.

 Marys Cement's quarry and docking activities, the protection of West Side Creek Marsh and shoreline processes in the area, and neighbourhood concerns about noise, vibrations and dust. With the assistance of the Trust, discussions among the company, regulatory agencies, and the community are ongoing to attempt to find an acceptable resolution.
- Given the small amount of remaining natural habitat within this unit, the need for restoration of natural habitats and corridors is a significant issue, particularly in West Side Creek Marsh and the lower creek valleys.
- One gap in the Waterfront Trail is yet to be resolved, in the area along the Wilmot Creek retirement community; several other sections of the Trail will also need improvement as trail usage increases.

REGENERATION GOALS AND NEXT STEPS

- Protect and restore significant natural areas and corridors
- The natural qualities of the following waterfront natural core areas should be protected and enhanced:

West Side Creek Marsh Bowmanville Creek/ Port Darlington Newcastle Marsh (Wilmot Creek Wetland)

- The valleys of Tooley Creek, Bowmanville Creek, Soper Creek, Wilmot Creek, and Graham Creek should be protected and restored as major bioregional corridors.
- Habitat restoration along or near the waterfront should be undertaken in three places - from Darlington Provincial Park to the buffer around Darlington Generating Station; in the West Side Creek Marsh to Bowmanville Marsh area; and around the mouth of Wilmot Creek.

- The discussion process currently underway with St. Marys Cement should be continued to arrive at a resolution which protects as much as possible of West Side Creek Marsh and provides ecological mitigation for any loss of wetland or shoreline function, and which also protects the company's investment and provides a secure source of limestone supply for the future.
- The Municipality of Clarington should be supported in its initiatives to develop an acquisition strategy for lands around the mouths of Wilmot and Bowmanville Creeks, to provide buffering for the significant stream and wetland corridors, additional areas for regeneration, and recreation opportunities.
- Given the current low percentage of natural habitats within this unit, strong efforts are needed to protect remaining wetland and forest habitats, and to establish a target of gradually increasing the extent of natural vegetation.

- 2. Improve shoreline management practices
- The Central Lake Ontario
 Conservation Authority, in conjunction with municipalities, agencies, and community groups, should develop an Integrated Shoreline Management Plan in conjunction with other sections of Shoreline Unit 6, prior to considering any proposals for major alteration of the shoreline.
 - Shoreline management practices in future should be designed to maintain natural shoreline processes, and to enhance coldwater fish community habitat and links to tributary streams.
- Any new waterfront development should be clustered rather than linear in form, and required to incorporate generous setbacks to minimize future shoreline protection needs.

- Expand opportunities for public access
- Discussions among the Trust, the
 Municipality of Clarington, the
 Rice Development Group, and the
 Wilmot Creek Homeowner's
 Association should continue to identify and implement an acceptable
 alignment for the Waterfront Trail.
- Options for trail alignments in the St. Marys Cement/Waverley Road area should be examined.
- 4. Develop tourism destination areas
- The Port Darlington and Port of Newcastle areas should be recognized as emerging secondary tourism/recreation destination areas, consistent with the Municipality of Clarington Waterfront Plan.
- The Municipality of Clarington should evaluate development proposals to ensure that they contribute to an optimal route for the Waterfront Trail, protect natural and cultural features, provide public access, and do not create future requirements for shoreline protective works.

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BOND HEAD-WESLEYVILLE LANDSCAPE UNIT

within the Municipality of Clarington and Township of Hope

LANDSCAPE CHARACTERISTICS

Physical:

This landscape unit has till plain near the lakeshore, bounded by drumlins and abandoned shoreline features to the north. Most of landscape is moderately rolling, with deeply dissected valleys and several extensive inland forests.

The shoreline type is cohesive cobble/boulder, with a convex profile. Most of the shoreline has moderate to high bluffs, actively eroding with considerable ravine development cut into the adjacent uplands. Bluffs are absent at Bouchette Point and Crysler Point, and small estuarine wetlands are present at Wesleyville and Port Britain. Very little shoreline armouring has been undertaken.

Biological:

The unit has 10.8% forest cover, including relatively large sections of interior forest, especially in the western portion. Port Granby Creek, Wesleyville Creek, and Port Britain Creek provide significant north-south corridors to the former Lake Iroquois shoreline. The woodlands associated with Bond Head Bluffs and along Highway 401 in the Newtonville area strengthen east-west connections.

A number of significant natural areas have been identified within this land-scape unit, including wetland and valleyland features and habitat for several rare species. Bond Head Bluffs and Port Granby East Bluffs provide sites of significant geological interest, as well as unusual vegetation associations.

Cultural:

This unit is also rich in cultural history, with a significant cluster of native archaeological sites occurring around the Wesleyville ravines, and many historic structures associated with the

agrarian period scattered throughout. Lakeshore Road is an important historic corridor, used for movement of troops in the War of 1812; together with associated hamlets like Wesleyville, it still retains much of its historic charm. Other linear features also have strong cultural associations, including Highway 2 along the north edge of the unit, and the long-abandoned Grand Trunk Railway bed which is still evident across much of the unit.

Current land use across most of the unit is mixed agriculture, with the notable exceptions of the Wesleyville Generating Station site, which is currently inactive, and two low-level radioactive waste sites.

Waterfront access within this unit is extremely limited, although many parts of Lakeshore Road provide pleasant distant views of the lake. While Lakeshore Road is frequently used as a cycling route by local clubs and by visitors to the area, recreational use overall is light.



PATTERNS OF CHANGE AND RELATED ISSUES

- While land uses are relatively stable within this unit, recent years have seen the introduction of a growing number of estate residential properties, mostly scattered within the rural landscape. Hope Township also has plans for a new industrial subdivision in the Wesleyville Road area.
- Bond Head Bluffs recently necessitated road repairs near Bond Head, and in future could affect an estate residential area and sections of the rail corridor. This is likely to lead to increased demand for expensive shoreline stabilization.
- The future of the Wesleyville
 Generating Station and the extensive buffer lands surrounding it is uncertain. Development as an active generating facility is very unlikely for at least several decades; alternative uses such as a waste incineration facility have been suggested by a private company. As well as the economic and community effects related to a change of use at this site, changes in its status

could affect the cultural heritage values associated with the hamlet of Wesleyville, which is almost totally owned by Ontario Hydro.

- Two low-level radioactive waste sites are located within the unit; the site at Port Granby is directly on the waterfront in an area of eroding bluff; the other site is located inland near Welcome. Relocation of these wastes is part of an ongoing process by the Low Level Radioactive Waste Siting Task Force, and has major implications both in terms of alternate site location and in the facilities necessary to move the wastes.
- The distinctive heritage character of Lakeshore Road from Bond Head to Port Hope could be threatened by the cumulative effects of nearby development and upgrading to service increasing vehicle traffic. The suitability of Lakeshore Road as an alignment for the Waterfront Trail is also an issue of discussion, because of its narrow right of way, lack of shoulders, and restricted visibility in places.

REGENERATION GOALS AND NEXT STEPS

- Protect and restore significant natural areas and corridors
- The natural qualities of the following waterfront natural core areas should be protected and enhanced:

Bond Head Bluffs
Port Granby East Bluffs
East Port Granby Ravine
Crysler Point Bluffs
Wesleyville Marsh
Wesleyville Ravines
Willowbeach Marsh
(Port Britain Marsh)
Otty Point Woods

The continuity of habitats should be strengthened within major bioregional corridors, including Port Granby, Wesleyville, and Port Britain Creek valleys, Bond Head Bluffs, and the forest corridor south of Newtonville from Graham Creek to Port Granby Creek. Where opportunities exist, tree-planting and naturalization programs should be used to strengthen connections between waterfront natural core areas, particularly in the Port Granby-Wesleyville area.

NINT STEPS

A restoration target of no net loss of forest cover in the unit would be appropriate, with particular attention paid to maintaining and expanding habitat areas with interior forest conditions.

Improve shoreline management practices

 Shoreline management practices in future in this unit should be designed to:

- maintain natural processes and habitats;
- provide opportunities for public access at a few selected locations;
- require development setbacks and encourage new development in cluster rather than linear form;
- enhance coldwater fish community habitats and linkages to tributary streams.
- The Ganaraska Region Conservation Authority, in conjunction with municipalities, agencies, and community groups, should prepare an Integrated Shoreline Management Plan prior to any major decisions on future shoreline treatment.

3. Enhance historic character

Planning policies and transportation practices should seek to maintain the heritage character of Lakeshore Road, the associated scenic views of rural landscape and the lake, and associated heritage structures (such as the wooden bridge over the railway and the heritage buildings in the hamlet of Wesleyville).

The Ministry of Citizenship,
Culture and Recreation and
Ontario Hydro should work cooperatively with the Hope Township
LACAC and other community
groups to develop viable uses for
heritage buildings within the hamlet of Wesleyville that will maintain
or restore their heritage character.

4. Complete the Waterfront Trail

The Waterfront Regeneration Trust should continue to discuss options with the Municipalities of Clarington and Hope to find an acceptable Waterfront Trail alignment from Bond Head to Port Hope. In the short term, the Trail may be largely road-based; in the longer term, the feasibility of putting parts of the Trail on the

Grand Trunk Railway bed and across Ontario Hydro waterfront lands should be investigated.

5 Guide future land uses

The public process being used to relocate the Port Granby low level radioactive waste site should be supported, and encouraged to come to resolution.

Ontario Hydro should ensure that any changes in use or ownership of the Wesleyville Generating Station lands will:

- involve an open public process, including consultation with the municipality and the Trust prior to decisions;
- protect natural and cultural values associated with the site, as well as the strong visual character of the landscape unit;
- fully explore opportunities for appropriate public access to the waterfront and for an optimal alignment for the Waterfront Trail.

PORT HOPE-COBOURG LANDSCAPE UNIT

within Port Hope, Hamilton Township, and Cobourg

LANDSCAPE CHARACTER

Physical:

This landscape unit, which includes the southern sections of Hamilton Township, is largely level to gently rolling drumlinized clay plain, with a section of till plain within the Town of Port Hope. The valleys of the Ganaraska River, Gage Creek, and Cobourg Creek are moderately incised into the landscape.

The shoreline in this unit has a deeply bedded limestone substrate and a convex profile, overlain along much of the shore by cobble beach and low bluffs. Extensive coastal marshes occur at Gage Creek and Carr Marsh. West to east coastal currents are interrupted by harbour breakwalls at Port Hope and Cobourg. Some limited shoreline armouring exists within the two urban centres, but not elsewhere.

Biological:

There is currently 6.3% forest cover within unit, mostly in river valleys and wetland areas. Significant natural areas include a specialized Great Lakes beach community in the Town of Cobourg. The lakeshore marshes between Port Hope and Cobourg provide an important habitat corridor, and the river valleys provide habitat connections to the Lake Iroquois shoreline and Oak Ridges Moraine to the north. The Ganaraska River especially is used seasonally by Rainbow Trout and other anadramous fish, and is a popular angling spot.

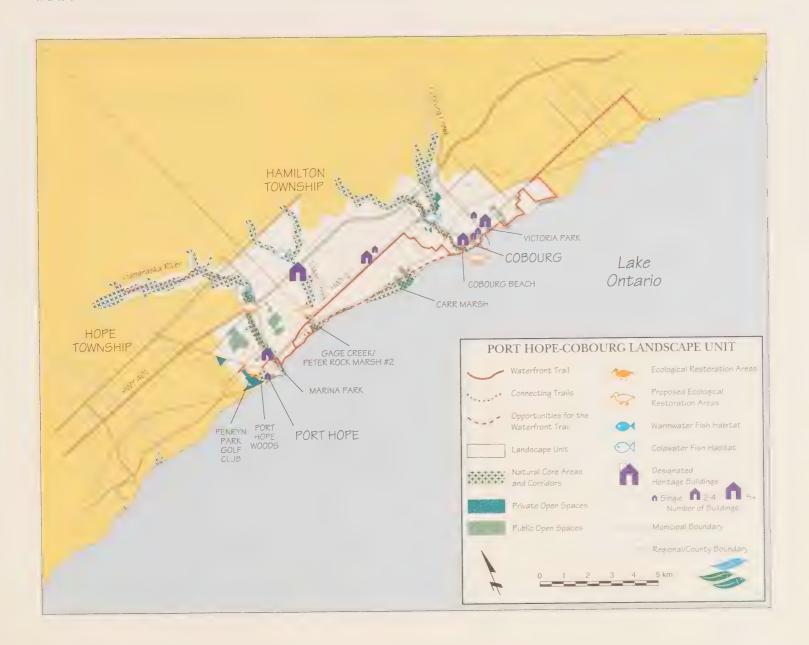
Cultural:

European settlement in this area dates back to the arrival of United Empire Loyalists in the late 1700s, making Port Hope and Cobourg among the oldest towns in Ontario. Milling and port uses, together with brewing and distilleries, brought early prosperity to these towns, and by 1850 most of the current downtown areas had been established. Cobourg later became a fashionable

resort area for Americans who built large summer mansions along the shore. A large stock of Victorian architecture from the 19th century remains intact in both towns, both in their downtown core and in older residential areas.

Current land uses include agriculture in the rural parts of the unit, a growing industrial base with several industrial areas directly on the waterfront (including Cameco and the Esco area in Port Hope, the GE Plastics plant in Hamilton Township). New residential and commercial growth is also occurring. The unit is strongly affected by the corridor effect of Highway 2 and rail lines relatively close to the waterfront.

Recreational use, particularly fishing and boating, is largely concentrated around the mouth of the Ganaraska River in Port Hope, and at an excellent marina and camping facility in central Cobourg. The Waterfront Trail is largely road-based in this unit, including long stretches on paved shoulders along Highway 2. However, both Port



Hope and Cobourg include some pleasant off-road sections, especially for walkers, and improvements are rapidly underway. The Gage Creek Trail in Port Hope, which has been recently developed, provides an excellent start for further trail development. The Ganaraska Trail has its southern terminus in Port Hope, and follows the Ganaraska valley northwards to the Ganaraska Forest on the Oak Ridges Moraine.

PATTERNS OF CHANGE AND RELATED ISSUES

Change is occurring relatively quickly in this unit, and its outstanding natural and cultural assets give it the potential for successful economic growth in future.

- New residential growth has been approved in the Penryn Park area at the west side of Port Hope, with additional developments proposed in this area of Port Hope and to the west of Cobourg.
- Development applications are under discussion in the area between downtown Cobourg and the harbour. Finding the right mix of land uses and establishing the appropriate scale and urban design

will be the key to maintaining the economic viability of the downtown area and ensuring that new development creates connections rather than barriers between the downtown and the waterfront.

- Both towns are having difficulty maintaining enough economic activity to sustain the vitality of their historic downtown cores; the development of shopping malls and commercial strip development along Highway 2 exacerbates this problem.
- In parts of Port Hope, and in Hamilton Township between the two towns, the rail corridors are a barrier to waterfront access, since few roads cross these multiple main lines.
- A legacy of radioactive and other industrial wastes has contaminated parts of Port Hope and the bed of the existing Port Hope harbour area; as a result, the harbour has been listed as an Area of Concern by the International Joint Commission. A small area of contaminated soils left by industrial and transportation uses has also been an issue in the Cobourg waterfront area.

REGENERATION GOALS AND NEXT STEPS

- Protect and restore significant natural areas and corridors
- The natural qualities of the following waterfront natural core areas should be protected and enhanced:

Port Hope Woods
Gage Creek/
Peter Rock Marsh #2
Carr Marsh
Cobourg Beach –
Cobourg Creek

- The continuity of major bioregional corridors along the waterfront between the two towns should be enhanced by encouraging natural regeneration. Greenway habitat and trail connections should also be encouraged along the valleys of the Ganaraska River, Gage Creek, and Cobourg Creek, including improved habitat connections for coldwater fish species.
- A regeneration target for tree cover should be established within the unit as a whole, to gradually expand the extent of natural habitats.

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Improve shoreline management practices

- The shoreline of this unit should be managed to maintain natural processes and habitats, including waterfront wetlands, coldwater fish communities, and natural sand supply to local beaches.

3. Enhance historic character

The distinctive historic character of the downtown and older residential areas of the two towns and the township should be strengthened by encouraging restoration of historic buildings and structures, particularly for uses which will support cultural or commercial activities to attract visitors, or will add to a high quality of life for residents.

4. Expand opportunities for public access

- * The current joint Trails Committee should continue to pursue landowner agreements and funding to develop a trail connection from Gage Creek to Cobourg south of the rail lines, and to work with CN Rail to incorporate a trail alignment into any future erosion control works along the tracks at the west edge of Port Hope.
- Future trail development should continue to incorporate interpretive facilities to encourage understanding of the value of marshes and other natural habitats, and to provide trail links into the adjacent region.

5. Develop tourism destination areas

The Heritage Shores area of Port Hope, Hamilton Township and Cobourg, which reflects the natural and cultural heritage of the shores of Lake Ontario and Rice Lake, should be promoted and developed as a primary tourism/recreation destination area (see vignette in the Lake Ontario Greenway Strategy, p. 137). The ongoing cooperative community efforts to develop, package and promote visi-

tor attractions in this area should be supported. This support should be based on priorities established by the long-term strategy produced by the Greenway Node Coordinating Committee, as well as the Town of Port Hope's tourism development strategy.

- The recommendations of the Port
 Hope Waterfront Master Plan should
 be reviewed to assess any conflicts
 with shoreline management priorities and to ascertain the best
 prospects for short-term action.
- The phased implementation of Cobourg's West Harbour Waterfront Development Plan should be supported.
- Municipalities and federal and provincial agencies should support the timely implementation of actions developed through the Port Hope Remedial Action Plan process and the Low Level Radioactive Waste Siting Task Force to restore degraded sites and allow compatible development to proceed.

GRAFTON-COLBORNE LANDSCAPE UNIT

within the Townships of Hamilton, Haldimand, Cramahe and Brighton, and the Village of Colborne

LANDSCAPE CHARACTER

Physical:

The landscape of this unit is mostly flat to gently sloping sand plain, interrupted in places by drumlin and esker features, and rising to abandoned Lake Iroquois shoreline features to the north. Near the east end of the unit, a band of till moraine arcs down to the shoreline; in one section, a provincially-significant series of abandoned beach ridges lie on top of this moraine.

Shelter Valley Creek cuts across this landscape unit in a deeply dissected forested valley. Other smaller water-courses, such as Barnum House Creek and Colborne Creek have less pronounced valleys near the lake, becoming deeper to the north. Colborne Creek and several smaller unnamed streams have estuarine wetlands at their mouths.

The coastline along this unit is limestone substrate with a convex profile; much of the shore has cobble beach, with low eroding bluffs at Chub Point and McGlennon Point. There are very limited shore protection works or lakefill projects along the unit.

Biological:

This unit contains 23.2% forest cover, mostly associated with valleylands, Lake Iroquois shoreline features, and forested wetland and lowland areas. A small amount of interior forest is present.

Shelter Valley Creek provides a major habitat corridor to the Oak Ridges Moraine. A mosaic of forested lowlands stretches from the Creek mouth west to Spicer, and another complex of forested wetlands provides a significant habitat node north of McGlennon Point.

Most of the streams draining into Lake Ontario within this unit are of coldwater quality in excellent condition, and provide seasonal habitat for anadramous fishes.

Cultural:

The unit is rich in cultural history, particularly for the period since the first United Empire Loyalists and British settlers arrived in the 18th century. While most of the villages developed along the Danforth Road (now Highway 2), associated ports were active at Grafton Harbour and Lakeport, with a cairn marking the site of Keeler's Wharf at the latter location. Grafton and Colborne have retained much of their historic character, and other buildings and cemeteries of historic interest are scattered across the rural parts of the unit.

Current land use is largely agricultural, with a considerable number of apple orchards in the eastern part of the unit. Several church camps and private recreational facilities are found along the shoreline, along with clusters of residential uses. A large limestone quarry, owned by St. Lawrence Cement Company, and associated loading machinery for lake transport are highly visible at Ogden Point.



The Waterfront Trail in this unit is almost entirely road-based, for the most part on scenic, low-traffic rural roads with occasional views of the lake. There are a few opportunities for side trails for walking associated with more recent shoreline subdivisions in Haldimand Township, but in general public access to the shoreline is very limited. A conservation area and recently-developed boat launch ramp in the Wicklow Bay area provide the best current opportunities for public use of the shoreline.

PATTERNS OF CHANGE AND RELATED ISSUES

Residential growth is occurring in the area south of Grafton, around the fringes of Colborne, along the shoreline west of Presqu'ile, and as scattered rural severances in most parts of the unit. The cumulative effect of this growth is uncertain in terms of effects on the natural environment, water quality, and heritage character of the unit.

- The presence of the Ogden Point quarry immediately south of the Village of Colborne, while bringing economic benefits to the area, does limit public access to part of the shoreline and could threaten parts of the Colborne Creek Wetland in the future.
- Since most of the shoreline in this unit is privately held, the desires of waterfront landowners for privacy and security sometimes conflict with the growing demand for public access to the water.

REGENERATION GOALS AND NEXT STEPS

- Protect significant natural areas and corridors
- The natural qualities of the following waterfront natural core areas should be protected and enhanced:
 - Spicer Lowland Woods
 Grafton Undulating Woods
 Chub Point
 Grafton Wetland
 Lower Shelter Valley Creek
 Wicklow Beach Wetland
 McGlennon Point Wetland
 Lakeport Wetland

Lakeport Old Lake Belleville
Shoreline
Colborne Creek Wetland
Colborne Woodlot
Salem Creek Woods
Salem Corners Swamp
(Salem Woods)
Spencer Point Creek Wetland
Hunt & Beach Road Wetland
(Popham Bay Wetland)

- The valley corridors along Lucas
 Point Creek, Barnum House Creek,
 Shelter Valley Creek, Colborne
 Creek, and Salem Creek should be
 protected and enhanced as important bioregional corridors, and as
 significant spawning areas for
 coldwater fish populations from
 Lake Ontario.
- Natural corridors parallel to the lakeshore from Spicer to Lakeport and from Salem to Presqu'ile should be protected and strengthened where possible to assist species movement along the shore. Areas of interior forest within these corridors should receive special attention, to protect their integrity and expand their area where feasible.

VIV. 5.1 PS

The initiative of the Lower Trent Region Conservation Authority should be supported in its programs to carry out natural areas inventories, particularly in headwater and valley areas along the former Lake Iroquois shoreline, and landowner contact programs for significant natural areas along the waterfront.

2. Improve shoreline management practices

- The LTRCA, in conjunction with municipalities, agencies, and community groups, should prepare an Integrated Shoreline Management Plan for this section of Shoreline Unit 7 to help ensure that future shoreline developments protect natural habitats, provide adequate setbacks to protect human safety and property, identify opportunities for improved public access, and provide a detailed direction for future integrated management.
- Through the programs of LTRCA and the Ministry of Natural Resources, priority should be given to strengthening the knowledge base for lake and tributary fish habitats within this unit.

- Future shoreline management practices should be designed to maintain natural processes and minimize the degree of intervention in the form of lakefill or armouring, with special attention to:
 - maintaining the alongshore supply of sand to Presqu'ile Beaches;
 - encouraging cluster rather than linear form for future developments;
 - enhancing coldwater fish habitat and connections to tributary streams.

3. Enhance historic character

The heritage character of Grafton, Colborne, Lakeport, and other hamlets should be protected, and encouragement and support given to the interpretation of the distinctive cultural heritage of the area for residents and visitors.

Expand opportunities for public access

Priority should be given within this unit to increasing the public land base along the shore, especially areas that can fulfil multiple objectives such as habitat protection, offroad locations for sections of trail, access for anglers, and public access to beaches. Sources of assistance for acquiring strategic waterfront properties should be explored through such programs as the Nature Conservancy of Canada's Great Lakes Program, the Eastern Habitat Joint Venture Program, or other funds.

5. Develop tourism visitation

- The Village of Colborne should be identified as a secondary tourism/recreation destination area, and should continue to encourage tourism visits to the area.
- The development of promotional materials and events linked to the Apple Route theme is underway as a vehicle with considerable potential to increase visitor interest in the area.

PRESQU'ILE-TRENT LANDSCAPE UNIT

within the Townships of Brighton and Murray, Town of Brighton, and City of Trenton

LANDSCAPE CHARACTER

Physical:

This landscape unit is based on relatively flat sand plain and clay plain, with sections of limestone plain along the southeastern edge. Limestone bedrock exposures form the basis for Presqu'ile Point, which is attached to the main shore by a series of beaches and dunes. Other significant coastal sand spit and island features are found at the entrance to Wellers Bay.

The shoreline along the southern coast of Presqu'ile Point and the Boat Harbour-Stoneburg Cove area (Shoreline Unit 9) is limestone bedrock substrate with a convex profile. The Presqu'ile Beach area on Popham Bay (Shoreline Unit 8) is a dynamic sand beach in a natural condition, also with a convex profile. Coastal currents are predominantly west to east, with little movement in the sheltered waters of Presqu'ile Bay, Wellers Bay, and the Bay of Quinte. Shorelines are low, with cobble or sandy beaches; extensive shoreline wetlands occur in Presqu'ile

Bay. There has been some lakefill and shoreline alteration associated with Gosport and with the construction of the Murray Canal; otherwise the shoreline is largely natural.

Two streams cross the unit, both having their source in the Lake Iroquois shoreline just to the north of this unit. Creek valleys are generally low-gradient and poorly defined, with small estuarine wetlands. The Trent River forms the eastern boundary of the unit.

Biological:

The unit has 18.4% forest cover, with a small amount of interior forest, most notably on Presqu'ile Point. Most forests are associated with wetlands or poorly drained areas. A major corridor of wetland and forest habitat stretches from the Bay of Quinte along the Dead Creek-Murray Canal area to Presqu'ile Bay.

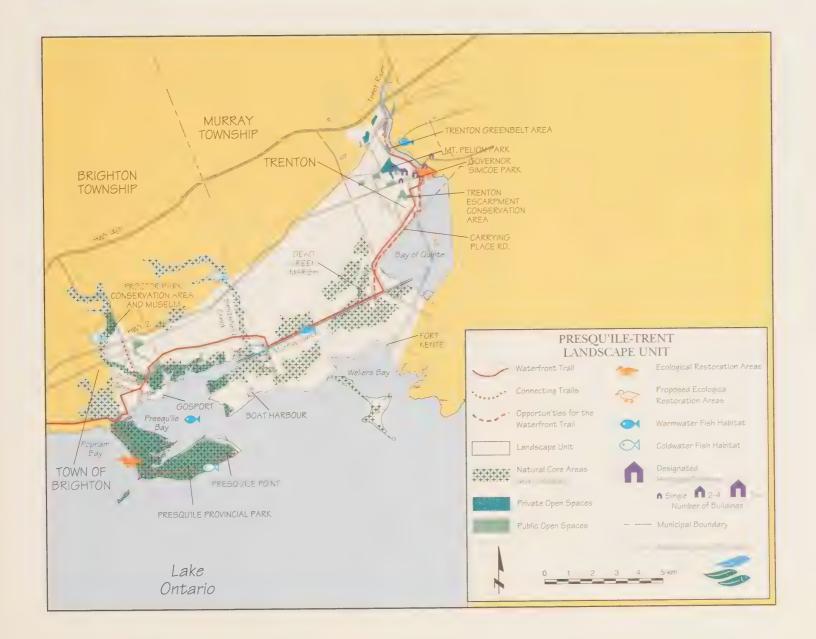
The Great Lakes shoreline features, woodlands, and marshes associated with Presqu'ile Point provide the most significant natural complex in the east-

ern section of the Greenway. Both the Point and the Bay provide very important staging habitat for migrating birds of many kinds. Heavy concentrations of waterfowl occur offshore, especially in spring.

The short tributary streams in this landscape unit are of cold-water quality, and provide spawning habitat for anadramous fishes. The sheltered bay areas of this unit are also important warmwater and coolwater fish community habitat, including such species as walleye which are rare elsewhere along the waterfront.

Cultural:

Settlement of this area first took place along the historic portage route at Carrying Place, where a number of historic houses still stand. Partial reconstruction of Fort Kente at the western end of the portage has taken place, and an annual festival celebrates the cultural importance of this route. Brighton and Trenton are also relatively early communities, with examples of historic structures still in place. The Murray Canal, completed in 1890, retains its



original form with cut limestone block edging and swing bridges for road and rail. Presqu'ile Point also has an interesting history, since it was planned to be the townsite for the County seat of Northumberland and Durham until the loss of the Speedy - a schooner carrying government officials and other notable citizens - off the point in 1804 prompted a move to the safer harbour of Cobourg.

The unit now has a mix of natural areas, agriculture with a strong apple-growing focus, shoreline residential, and expanding small urban centres. Tourism associated with Presqu'ile Provincial Park and the Trent-Severn Canal is a major economic force. Annual festivals in Brighton and Trenton also attract visitors. Marina facilities are located at Gosport and in Trenton.

The Waterfront Trail within this unit is largely road-based, although extensive associated trail opportunities and public shoreline areas are available in Presqu'ile Provincial Park. Connecting local trails are in place in Brighton and along the Trent River Greenbelt in Trenton; future trail extensions are proposed to link to Belleville and into the Prince Edward County area.

PATTERNS OF CHANGE AND RELATED ISSUES

- A considerable amount of residential growth has been proposed and is underway in the Town of Brighton, between the rail lines and the waterfront. In some cases, this residential expansion raises issues of maintaining environmental values (such as a green corridor along Butler (Proctors) Creek); other proposals could provide opportunities to improve waterfront access or alignments for the Waterfront Trail.
- Another area of major residential growth is a proposed retirement home community on the shores of Wellers Bay, which has been approved by Murray Township. This development proposes to provide private open space along the waterfront. Part of the development could conflict with protection of natural areas to the north.
- The City of Trenton has experienced recent growth in the commercial sector, including a significant amount of development along the waterfront. The industrial base has stabilized since the losses incurred in the early 1990s. Any

future development activity must take into consideration the need to restore the natural environment of the Bay of Quinte and the Trent River.

- A portion of the abandoned CN Rail line from Trenton to Picton creates an opportunity to develop an off-road alignment for the Waterfront Trail parallel to Highway 33.
- Parks Canada have announced their intention to close the service roads along the Murray Canal in order to cut maintenance costs; the Township of Murray is considering leasing the roads to provide emergency access and possible use for the Waterfront Trail.
- A new Marine Heritage Centre is being developed at the historic lighthouse in Presqu'ile Provincial Park, which will provide a major interpretive facility oriented towards historic uses of Lake Ontario.

REGENERATION GOALS AND NEXT STEPS

- Protect significant natural areas and corridors
- The connection between the Bay of Quinte and Dead Creek Marsh should be restored at Highway 33 to allow free movement of fish from the Bay to spawning and nursery areas in the marsh.
- The natural qualities of the following waterfront natural core areas should be protected and enhanced:

Presqu'ile Provincial Park
Presqu'ile Bay Wetland
Brighton Woods
Carley Point Woods
Swing Bridge Woods
Smithfield Creek Wetland
Lovett Swamp
Barcovan Swamp
Carrying Place Woods
Dead Creek Marsh
Dead Creek Escarpment Woods
Wooler Road Woods
Wellers Bay/Bald Head Island

- The continuity of Butler (Proctors) Creek and Smithfield Creek as major bioregional corridors should be maintained and enhanced, and linkages between these streams and Presqu'ile Bay protected.
- Point to Bay of Quinte wetland and forest corridor should be maintained and strengthened, including maintaining links for the movement of walleye and other coolwater fish communities, and protecting large blocks of marsh and forest habitat.
- Development plans for the Wellers Bay community should be reviewed to ensure that protection for significant natural areas and public access has been adequately provided.
- The Ministry of Natural Resources should complete and approve a management plan including full public consultation, for Presqu'ile Provincial Park. The plan should address protection and restoration of the natural features and appropriate public uses of the park.

- Improve shoreline management practices
 - Future shoreline management and the management of Presqu'ile Provincial Park should maintain the integrity of Presqu'ile Beach as the only fully functional dynamic beach along the Greenway, with an emphasis on:
 - restoration of associated sand dunes and backshore;
 - protection of migrant shorebird habitat;
 - providing controlled public access to a significant recreational resource;
 - maintaining offshore coldwater forage fish production.
- Shoreline management elsewhere in this landscape unit should maintain natural coastal processes on the exposed limestone shore, enhance salmonid spawning potential on shoal areas, and document fish community use as a benchmark for restoration efforts elsewhere along the waterfront.

The findings and recommendations of the Stage 2 Report for the Bay of Quinte Remedial Action Plan should be supported, and full implementation undertaken as quickly as possible.

3. Enhance historic character

Municipal policies and programs should seek to strengthen cultural heritage understanding and protection, especially in the vicinities of Carrying Place, Murray Canal, Trenton, and Brighton.

4. Expand opportunities for public access

The Waterfront Trail should be gradually enhanced by relocating off busy roads where opportunities arise, by improvements along the Murray Canal section, and by providing links to the Presqu'ile trail system, Prince Edward County, and the Trenton trail system.

The abandoned CN rail line south of Trenton should be brought into public ownership as a future corridor for the Waterfront Trail and other public uses.

5. Develop tourism destination areas

should be developed as a primary tourism/recreation destination area, building on the existing attraction of the provincial park. Community-driven joint planning between Presqu'ile Provincial Park, the Town of Brighton, and surrounding areas is needed to develop, package, and promote new or expanded visitor attractions, especially those which attract visitors in shoulder seasons and those which encourage existing tourists to visit other attractions in the area.

- Community linkages and promotion efforts should be strengthened to develop Trenton-Belleville as a primary tourism/recreation destination area, oriented especially to the Bay of Quinte waterfront. The implementation of the plans of the Trenton Waterfront Committee should be supported through federal and provincial grant programs as well as local funding. Discussion of joint promotions with Belleville and with the Trent-Severn Waterway should also be encouraged.
- There appears to be a strong rationale to support expanded marina capacity in Trenton, as a regional hub for boaters travelling Lake Ontario, the Bay of Quinte, and the Trent-Severn Waterway.
- Continued efforts should be made to promote the Apple Route and related festivals such as the Brighton Applefest, as a way of introducing visitors to the area.

Next

by the Waterfront
Regeneration Trust

NEXT STEPS BY THE WATERFRONT REGENERATION TRUST

INTRODUCTION

The Waterfront Regeneration Trust (WRT) will work within the framework established by the Lake Ontario Greenway Strategy, using the ecosystem approach to integrate environmental, economic and community considerations. The WRT's work program will focus on four inter-related themes:

- environmental regeneration;
- economic revitalisation;
- the Waterfront Trail; and
- community participation.

THEMES

Environmental Regeneration:

Public and business concerns about the aesthetic, human health and wildlife issues associated with environmental degradation affect the ability of the waterfront to reach its potential in terms of social and economic benefits. Action to address these issues is hindered by jurisdictional problems, inefficiency, lack of agreement on objectives, and funding limitations.

To reduce these impediments, the WRT will continue to perform the following functions:

- development of public and agency commitments to action;
- coordination of activities to improve efficiency and effectiveness;
- development of partnerships and funding packages for regeneration projects; and

 information exchange, workshops, publications and other educational programs.

These functions may be applied to:

- the Lakewide Management Plan for Lake Ontario;
- watershed strategies, water and sediment quality improvement projects and Remedial Action Plans;
- air quality initiatives;
- cultural heritage conservation;
- landowner stewardship programs;
- habitat securement and restoration projects;
- integrated shoreline management plans; and
- one-window approval processes.

Economic Revitalisation:

To remove financial, environmental and jurisdictional barriers to the revitalisation of urban, tourism, recreation, and/or industrial centres on the waterfront, the WRT will continue to perform such functions as:

- interjurisdictional coordination;
- issue analysis and problem-solving;
- ♦ conflict resolution:
- effective community involvement;
- facilitation of transportation improvements;
- facilitation of clean-up of contaminated sites;
- partnership development; and
- creative funding.

Ongoing project areas, where some or all of these functions are being performed, include:

- Red Hill Valley in Hamilton;
- Garrison Common in Toronto;
- Toronto Island Airport in Toronto;
- Roundhouse Park/Harbourfront/ Railway lands in Toronto;
- the Lower Don Lands in Toronto, including Ataratiri;
- Greenwood site in Toronto;
- Oshawa Harbour/Darlington area;
 West Side Creek Marsh in Bowmanville; and
- Port Hope/Cobourg/Hamilton Township area.

Other areas can be added on request.

The Waterfront Trail:

The work undertaken so far on the Waterfront Trail is contributing to community-based economic revitalisation. It represents a significant and effective investment in recreation and fitness, tourism, community pride and economic renewal. However, significant gaps remain and there is considerable potential to enhance the Trail, adding to its community, economic and environmental benefits.

In order to maximise the returns on existing and future investments, the WRT will build on the work completed to date by promoting and facilitating trail improvement and expansion.

The WRT will perform the following functions:

- leadership, coordination and advice
- assistance with partnerships and funding;

- monitoring progress;
- information exchange.

Some or all of these functions will be applied to:

- the completion and enhancement of the Trail and associated open spaces between Burlington and Trenton;
- extensions of the Trail to add to its economic value and meet the needs of communities in the Hamilton, Niagara, Belleville and Kingston areas;
- connections with watershed trail systems;
- implementation of the Interpretation Plan for the Lake Ontario Greenway to add meaning and value to the Waterfront Trail.

Community Participation:

The active involvement of waterfront communities has been a cornerstone of the success demonstrated to date with LOGS and the Waterfront Trail. This is shown in increased local pride, volunteer participation, educational opportunities, input into decision-making, fund-raising, and business ventures.

To ensure that these benefits are sustained and multiplied, the WRT will continue its program to foster the understanding, commitment and participation of communities in LOGS implementation.

The WRT will involve communities through:

- its ongoing publishing program (newsletters, reports, guidebooks, manuals, etc);
- promotion of waterfront use and activities through publications, events, joint marketing etc;
- cooperative education programs for youth and the general public;
- progress reports on waterfront regeneration;
- speaking engagements, events and displays;
- sponsorship and trail blazer programs; and
- an endowment fund for waterfront projects.

NEXT STEPS

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PRODUCTION CREDITS

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